

## ABSTRACT

**Prahasti, WindaAminarto.** *The correlation between students' self-efficacy and students' English achievement for eighth grade students of SMPN 1 BabadanPonorogo in academic year 2015/2016.* Thesis, English Education Department, Tarbiyah Faculty, State Islamic College of Ponorogo, Advisor Ahmad Nadhif,M.Pd.

**Key words:** Students' self-efficacy, students' English achievement.

This study aims at examining the correlation between students' self-efficacy with their English achievement for eighth grade students of SMPN 1 Babadan is tries to find out the correlation between students' self-efficacy and students' English achievement for eighth grade of SMPN 1 BabadanPonorogo. The problem is; Is there any correlation between students' self-efficacy and students' English achievement for eighth grade students of SMPN 1 BabadanPonorogo? Perceived of self-efficacy is defined as people's belief about their capabilities to produce designated levels of performance and belief determine how they feel, think, motivated themselves.

This research hypothesis offers two variables; X variable refer to students' self-efficacy and Y variable refer to students' English achievement. The population of this research was the whole students of eighth grade which consist of 132. The writer used random sampling as sampling technique consists of 42 students from 35% in every class. In this research, researcher uses questionnaires and documentation to collect data.

After conducting the research, the research find that the average score of students' self-efficacy was enough, 24 students or 57,10% with score between 28-37. Also, students' English achievement is moderate, 25 students or 59,50% with score between 76-83. The researcher showed that db of  $N-2 = 42-2 = 40$ . The researcher find from product moment formula that was  $r_{xy} = 0,680$ . The critical value of Pearson  $r_{table}$  with the 5% was 0,304 and  $r_{table}$  1% was 0,393. It means that  $r_{xy} > r_{table}$ , so null hypothesis was rejected and alternative hypothesis was accepted.

The result of data analysis above, the researcher concludes that there is significant correlation between students' self-efficacy and students' English achievement for eighth grade students of SMPN1 BabadanPonorogo. In other words, the students that have sufficient self-efficacy, the sufficient score students got in English achievement.

## CHAPTER I

### INTRODUCTION

#### A. Background of Study

English achievement involved four English language skills. There are listening, reading, writing, and speaking. The teaching and learning are a process that can be should followed by the students to reach the higher level of education. In SMPN 1 Babadan, the teaching and learning is very discipline. But, the discipline is not enough to make all the students are obedient and have a satisfying achievement. This makes students unconfident to follow the process of learning English because they fell unconfident their efficacy.

Self-efficacy has become the most important construct worth study in psychology since the time Albert Bandura, who initially specialized as a behaviorist, became dissatisfied with the nature of behaviorism for the reason that a key component was missing from this widely known and accepted learning theory of that time. “In 1977, with the publication of “Self-efficacy: Toward a Unifying Theory of Behavioral Change,” Albert Bandura identified an important

aspect of that missing element, which suggests that people can develop self-perceptions of ability to accomplish a given task”.<sup>1</sup>

According to Bandura, “self-efficacy is someone belief of what can be done”.<sup>2</sup> It’s different to want to do. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave. Self-efficacy refers to a person’s beliefs about their ability to learn or perform action at specified levels. “Self-efficacy is grounded in large theoretical framework known as social cognitive theory, which postulates that human achievement depends on interaction between one’s behaviors, personal factor (e.g., beliefs), and environmental conditions”.<sup>3</sup>

Self-efficacy theory postulates that people acquire information to appraise efficacy from their performance accomplishments, observational experiences, forms of persuasions, and physiological indexes. An individual’s own performances offer the most reliable guides for assessing efficacy. Performance in learning activities is avaluable work habit. It provides, “students with opportunities to learn and practice new knowledge and strategies, to explain their reasoning, and examine their thinking processes and recognize the need to revise thinking”.<sup>4</sup>

---

<sup>1</sup>BekeleBirhaniearegu. Enhancing self-regulated learning in Teaching spoken communication: Does it Affect Speaking Efficacy and Performance? (Electronic Journal of foreign Language Teaching, 2013),99

<sup>2</sup> Dale H.schunk. Learning Theories An Education Perspective. (Yogyakarta: PustakaBelajar,2012),202

<sup>3</sup>Dale H.Schunk and Frank Pajares. The Development of Academic Self-Efficacy,2

<sup>4</sup>JulianeC.Turner and Helen Patrick. Motivational Influence on Students Participation in Classroom Learning Activities,1760

“Successes raise efficacy and failure lowers it, but once a strong sense of efficacy is developed”.<sup>5</sup> “In behavior, for Bandura the key to change the system is self-efficacy. Self-efficacy or confidence the habit themselves can be obtained, modified, upgrade or downgraded”.<sup>6</sup>

The concept of self is the core of the personality pattern, is made up of belief and attitudes toward their self. Categorized indicators of perceived personal efficacy as: student with sense of self-efficacy tend to comfortable in activities, personal happily in many ways, maintain their commitment, recover their efficacy after failures, lowers ability and reduce to depression. “In the study, self-efficacy is defined as people’s beliefs about their capabilities to produced designated levels of performance that exercise influence over events that affect their lives”.<sup>7</sup> So, “self-efficacy can help students to beliefs in their capabilities in any learning situation. It cause self-efficacy associated with effort and tenacity stints”.<sup>8</sup>

This research wants to know the correlation between students’ self-efficacy on students’ English achievement. Based on statement above, the researcher take the study with the title “The correlation between students’ self-efficacy and students’ English achievement for the eighth grade students at SMP N 1 BABADAN Ponorogo in academic year 2015/2016”.

---

<sup>5</sup> Dale H. Schunk. *Self-efficacy and Academic Motivation*. (1991),1

<sup>6</sup> Alwisol. *Psikologi Kepribadian*. (Malang: UMM Press, 2009),288

<sup>7</sup> Albert Bandura. *Self-efficacy*. *Encyclopedia of mental health*. San Diego: Academic Press, 1998),2

<sup>8</sup> Dale H. Schunk. *Learning Theories An Education Perspective*. (Yogyakarta: PustakaBelajar, 2012),205

## **B. Limitation of the Study**

Many things can be developed in the process of learning English is considered to developed intrapersonal students, namely by performing independent tasks, reflection, set goals, showing the form of activity, reveal something, and create identity. The writer limits the research only about correlation between students' self-efficacy and students' English achievement for eighth grade students of SMPN 1 BabadanPonorogo in academic year 2015/2016.

## **C. Statement of the Problem**

Based on the scope of the study, the problem of the study can be stated as follows:

- Is there any correlation between students self-efficacy and students' English achievement for eighth grade students of SMP N 1 BabadanPonorogo in academic year 2015/2016?

## **D. Objective of the Study**

The objective of the study in this research is:

- To find out the correlation between students self-efficacy and students' English achievement for eight grade students of SMP N 1 BabadanPonorogo in academic year 2015/2016.



## **E. Significance of the Study**

Basically, all activities should have a clear purpose and significance. The result of the study is expected to give some advantages either theoretical or empirical, such as:

### **1. Theoretical significance**

This study expected can reveal and prove the theory of self-efficacy that has an influence with the students' English class.

### **2. Empirical significance**

#### **a. For the teacher**

This study expected to allows teachers to lead student self-efficacy in English class.

#### **b. For the student**

The writer hopes the students have an achievement, both in their English class.

#### **c. For the reader**

The writer believes that this writing is far from perfect. There are many weaknesses that found in this thesis. So, writer hopes that this writing can be frame of thought or starting point for the other writes to find out the perfect of study.

## **F. Organization of the Thesis**

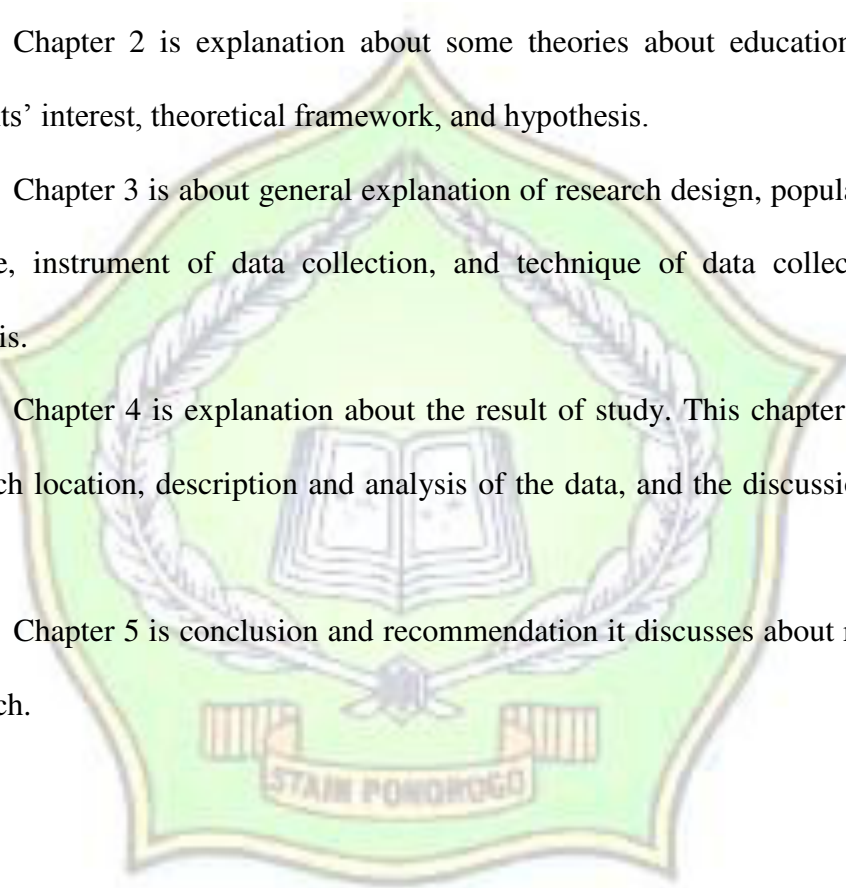
Chapter 1 is introduction. This chapter serves to describe the basic patterns of entire content of thesis which consist of background of the study, identification of the problem, limitation of the problem, statement of the problem, objectives of study, and organization of the thesis.

Chapter 2 is explanation about some theories about education, media, students' interest, theoretical framework, and hypothesis.

Chapter 3 is about general explanation of research design, population and sample, instrument of data collection, and technique of data collection and analysis.

Chapter 4 is explanation about the result of study. This chapter contains research location, description and analysis of the data, and the discussion of the result.

Chapter 5 is conclusion and recommendation it discusses about results of research.



## CHAPTER II

### REVIEW OF RELATED LITERATURE

#### A. Theoretical Background

##### 1. Students'

###### a. Definition student

“Student is a person who studying at a college or university or school”.<sup>9</sup> A student is a learner, or someone who attends an education institution. Student is used for anyone who is learning, including mid-career adults who are talking vocational education or returning to university.

##### 2. Self-efficacy

###### a. Definition Self-efficacy

Perceived self-efficacy is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave. Such beliefs produce these diverse effects through four major processes. They include cognitive, motivational, affective and selection processes.

---

<sup>9</sup> Oxford learners pocket dictionary fourth edition. (New York: Oxford University Press, 2010), 441



According to Bandura, Self-efficacy has three dimensions:

- 1) "Magnitude, the level of task difficulty a person believe their can attain.<sup>10</sup>

It means this dimension relates to the degree of difficulty of the task when individuals feel able to do. When people are faced with tasks that are arranged according to the degree of difficulty, then the efficacy of the individual may be restricted to task that's that easy, medium, or even include the task of the hardest. According to the capacity limit is felt to meet the demands of behavior needed at each level.

This dimension has implications for the selection of behavior deemed capable of doing and avoid behavior that is outside the limits of that sense it.

- 2) Strength, the conviction regarding magnitude as strong or weak.<sup>11</sup>

This dimension relates to the power level of individual beliefs or expectations about its capabilities. The hope of the weak easily swayed by experiences that don't supported. Instead, the hope that steady encourage individuals persist in his efforts. Although, may be found the experience lacking.

---

<sup>10</sup>Fred C.Lunenburg. Self-efficacy in the workplace: implication for motivation and performance (International Journal of Management, Bsiness and Administration Volume). Sam Houston State University, 2011), 1

<sup>11</sup> Ibid.

This dimension is usually directly related to the level dimensions, the higher level of difficulty of the task, the weaker the confidence that is felt to complete.

- 3) Generally, the degree to which the expectation is generalized across the situations”.<sup>12</sup>

This dimension is related to the broad areas of behavior in which the individual feels confident in his ability. Individuals can feel confident about their abilities. Are limited to a particular situation or activity and in a series of activities and other situation.

According to Bandura, indicators of self-efficacy defined into 4:

- 1) Orientation on the goal

More high of someone's self-efficacy is more high their goal to achieve.

- 2) Orientation control

Everything that happens in a person will be his own personal responsibility.

- 3) The amount of effort that was developed under the circumstance

Personal motivation can be seen from the belief held their ability to perform and tackle.

- 4) Long someone will survive in the face of obstacles

---

<sup>12</sup>Ibid.

Someone will have a strong sense of her abilities and doing something constantly to achieve success.

Self-efficacy is concerned with student's belief in their capabilities to produce given attainments. A high sense of efficacy in learning is conducive to reach the goal. In other hand, low sense of self-efficacy would give bad effect for students in any learning situation. Junior high school is the second level of students in education system. It means that students should have different level of the way of thinking and the way to study.

Bandura's Social Cognitive Model says that there are three factors that influence self-efficacy;

- a) Behaviors
- b) Environment, and
- c) Personal/ cognitive factors.<sup>13</sup>

According to Staples et al. (1998), self-efficacy theory suggests that there are four major sources of information used by individuals when forming self-efficacy judgments. In order of strength:

1. Performance accomplishment: personal assessment information that is based on an individual's personal accomplishments.

---

<sup>13</sup> [http://nuringplanet.com/theory/self\\_efficacy\\_theory\\_html](http://nuringplanet.com/theory/self_efficacy_theory_html)

2. Vicarious experience: gained by observing others performs activities successfully.
3. Social persuasion: activities where people are led, through suggestion, into believing that they can cope successfully with specific tasks.
4. Physiological and emotional states: the individual's physiological or emotional states influence self-efficacy judgments with respect to specific tasks.<sup>14</sup>

#### **b. Component and dimension self-efficacy to the students**

According to Bandura, high or low self-efficacy in combination with environment responsive and unresponsive environment produces four variables that can be predicated:

- 1) If the self-efficacy high and responsive environment that can be predicted the result is success.
- 2) If the self-efficacy are low and responsive environment is humans can become depressed when they observe other people successfully completing difficult tasks.
- 3) If the self-efficacy is high and unresponsive environmental outcomes that can be expected is a human will strive to change the environment.
- 4) If the self-efficacy is low and unresponsive environmental outcomes that can be expected is a human would find it easy to give up and helpless.

---

<sup>14</sup> [http://edutechwiki.unige.ch/en/self-efficacy\\_theory](http://edutechwiki.unige.ch/en/self-efficacy_theory)

### **c. The benefits of self-efficacy**

#### 1) Choice behavior

With their self-efficacy, the individual will establish what action he would do in the face of a task to achieve a desired goal.

#### 2) Choice career

Self-efficacy is a mediator who had an impact on the selection of one's career. When a person is able to carry out tasks in a particular career, usually he will choose a career proficiency level.

#### 3) The quantity of effort and desire to remain in a task

Individuals who have high self-efficacy will usually try hard to survive in the face of difficulties and do a task when they already have the prerequisite skills. While individuals who have low self-efficacy will be disturbed by doubts about the ability of self and easily give up when facing difficulties in doing their jobs.

#### 4) Quality effort

The use of strategies to process a task in more depth and cognitive engagement in learning have a close relationship with high self-efficacy.

### **3. English Achievement**

#### **a. Definition English Achievement**

English achievement is a thing done successfully with effort and skill.

English achievement is a result brought about by resolve, persistence, or



endeavor, and then quality and quantity of a student's work in learning English. Achievement is the result of learning that has been achieved according to the capabilities not found and marked with the developments and changes to a person's behavior in required of learning with a certain time.

In the Oxford Dictionary "Achievement is a thing done successfully especially with effort and skill".<sup>15</sup> English achievement is an important aspect in education that indicator the success in students' learning in English. Students improve their skill to achieve their good achievement. Achievement qualities can be gotten by many ways for example, test, competition, and so on.

Students' English achievement is how students accepting the English language. Getting English achievement involves four skills. Listening and speaking as productive skills and reading and writing as receptive skills.

There are is:

- 1) Listening

Listening achievement intent that students able to demonstrate general and specific understanding of longer and more complex material; identify the important points or themes of the material, including attitudes, emotions, and ideas that are expressed; and draw

---

<sup>15</sup> Hornby, Oxford Advanced Learner dictionary (New York: Oxford University Press), 12.

conclusion from and identify relationship between ideas within the material.

In English learning activity the students are listening to intensive oral language. It means that fluent utterance is produced by receptive activity, not in productive activity. Some listening activities will wake your pupil up, make them move about, create movement and/or noise.

## 2) Speaking

Speaking skill has aim to enable students to develop the ability to use the language effectively for purposes of practical communication within the country of residence, where appropriate, and in all countries where the language is spoken.

There are many types of activities in speaking skill. They are:

- a. Talk story based on the picture
- b. Telling jokes
- c. Giving idea about something from the text
- d. Retelling about something from the text
- e. State agreement or disagreement about someone in statement
- f. Discuss about problem in the activities together
- g. Giving opinion about someone's feeling

### 3) Reading

In reading skill, the students need to be able to relate to and understand the text, and this is an interactive process. Reading for interest or pleasure may be the final aim, but it is important to consider the hierarchy of skills necessary in the reading process to help the readers acquire confidence and autonomy.

Reading is also the language skill which is easiest to keep up. Many of us can still read in a foreign language that people used to be able to speak as well.

### 4) Writing

In writing skill, the students are expected to express thoughts, feelings, and opinions and to narrate events in the past and to demonstrate control of vocabulary, syntax and grammar, punctuation and spelling.

## **b. Factors benefits of achievement**

### a. Internal Factor

#### 1) Physical and spiritual health

Physical and spiritual health has a great effect in learning ability. Health care is very important for everyone both physical and mentally. In order to remain healthy, the mind should always be fresh, and energetic to carry out the learning activities.

## 2) Intelligence and talent

Intelligence and talent is much influenced by learning ability. If someone has high intelligence and talent he will also has the ability to enjoy the learning process smoothly and successfully.

## 3) Interest and motivation

Interest and motivation are two physical aspects which is also as great effect on learning achievement. Great interest in learning is big capital to produce high achievement. Motivation is driving incentive to do the jobs. Someone with a strong motivation to learn will conduct his study in earnest, full of passion.

## 4) Way to learn

The students learning behavior is also affect the result of study. Learning without considering technical, physiological, and health factors, will produce unsatisfactory results.

### b. External factor

Beside personality factors, success or not a learning process are influenced by extern or social factor.

#### 1) Family condition

Families are the fathers, mothers, children and or other members of family who stayed at home. Parents give very great effect on the child's success in learning process.

## 2) School

In the school, the teacher and the method are also important factors.

## 3) Community

Social conditions determine academic achievement when the condition of community composed of education, especially most of the children have high education and also have good moral, it's will support children to learn more.

## 4) Environment and chances

Children from good family, have good intelligence, and study in good school, are not always able to learn well.

## B. Previous Study

Before the researcher will hold this researcher, the researcher studied previous research as follow:

**RichyAmwazir.2013.** *Students' Self-Efficacy* in Speaking Class at the First Year English department Students of STKIP PGRI Sumatera Barat in Academic year 2012/2013. Thesis, the English Language Courses of STKIP PGRI Sumatera Barat.

Based on the research, the researcher gets the result about students' self-efficacy in speaking class at the first year English department students of STKIP PGRI Sumatera Barat in academic year 2012/2013. Generally, the first year



English department students had high sense of self-efficacy. There were only 22.5% students at the middle level of self-efficacy, 57.5% students at the high level of self-efficacy and 20% students at the very high level of self-efficacy. Then, major processes that influence students in activating self-efficacy in speaking class is selection processes, in which students tend to choose good environment to increase their sense of self-efficacy. Students' total percentage in selection processes were 74.5%. So, the researcher can indicate that self-efficacy is useful for all of students. By having self-efficacy in speaking, students can belief in their capabilities of speaking in foreign language.

**Tanaya and Sylvia.** The Influence and proactive attitude towards burnout administration worker faculty/ department/ program of study at the Petra Christian University.

Discussion of the results showed that self-efficacy and proactive attitude simultaneous effect on the level of burnout experienced by some employees of the administration department/ faculty/ study program at Petra Christian University environment. This is evidenced by the results of the test F, where  $F_{count} (3,965) > F_{table} (2,44)$ . What is means is that Self-efficacy (X1) and proactive (X2) effect simultaneous to the administration worker burnout department/ faculty/ study at Petra Christian University environment.

**EkoFerridianto.** The Influence of Self-efficacy and Achievement Motivation Technopreneurship Study Entrepreneurship to Students Majoring in

Electrical Power Engineering Installations is SMK 1 SEDAYU. Thesis, the Education Courses Faculty Electro Technique Yogyakarta University.

Based on the retrieval and analysis of research data on the influence of self-efficacy and achievement motivation towards entrepreneurship class XI students majoring in Electrical Power Engineering installation SMK 1 SEDAYU can be concluded that 1) there are significant positive reply to the motivation technoentrepreneurship self-efficacy of 32,6% with evidence of  $T_{count} 6,913 > T_{table} 1,664$ . 2) There are positive influence entrepreneurial learning achievement against motivation students of class XI TITL SMK 1 SEDAYU with  $T_{count} 4,243 > T_{table} 1,664$ , the magnitude of the effect is 16,4%.

**Febrina Handayani.** The Relationship between Self-efficacy and Students Achievement Accelerating at SMP 1 Surabaya. Thesis, the Education Science Faculty of Psychology Surabaya University.

The research resulted in the correlation coefficient ( $r=0,567$ ) with  $p=0,000$  for significant value is less than the error rate ( $p>0,05$ ) then the hypothesis is accepted. It means that there is a relationship between self-efficacy by accelerating student achievement. This study proves that students with self-efficacy acceleration that they know they have completed the task difficulty level and believe their efforts in a variety of situations. Students' acceleration with high self-efficacy believed they can improve the performance of the desire learning with peers who have the same intelligence.

### **C. Theoretical Framework**

X = Students Self-Efficacy

Y = Students English Achievement

Those variables are students' self-efficacy (X) as independent variable and students English achievement (Y) as dependent. From the two variables above, we can conclude the theoretical framework as follows,

1. If the students' have not a good self-efficacy, the students' English achievement is low.
2. If the students' have a good self-efficacy, the students' English achievement is high.

### **D. Hypothesis**

Hypothesis in this research can be stated based on the review of related literature and theoretical framework stated above. The hypotheses are as follows:

1. Null Hypothesis (H<sub>0</sub>)

There is no significant correlation between students' self-efficacy and students' English achievement for eight grade students of SMPN 1 Babadan in academic year 2015/2016.

2. Alternative Hypothesis (H<sub>a</sub>)

There is significant between students' self-efficacy and students' English achievement class for eight grade students of SMPN 1 Babadan in academic year 2015/2016.

## CHAPTER III

### RESEARCH METHODOLOGY

#### A. Research Design

“Research is simply the process of arriving as dependable solution to a problem through the planned and systematic collection, analysis and interpretation of data”.<sup>16</sup>

This research promotes a hypothesis “There is correlation between students’ self-efficacy and students’ English achievement for eight grade students of SMPN 1 Babadan in academic year 2015/2016”. The hypothesis offers two variables; X variable and Y variable. X variable refer to students self-efficacy and Y variable refer to students’ English achievement. Both students’ self-efficacy to students’ English achievement at eight grade students of SMPN 1 Babadan in academic year 2015/2016 is measured through questionnaires. Then, the results of the questionnaires is use to know whether there is correlation between students’ self-efficacy and students’ English achievement for eight grade students of SMPN 1 Babadan in academic year 2015/2016.

---

<sup>16</sup>Yogesh Kumar Signh. (Fundamental of Research Methodology and Statistic. New York: New Age International, 2006),77

## B. Population and Sample

### a) Population

“Population is the whole subject of research”.<sup>17</sup>The populations in this research take the students’ self-efficacy for all of eighth grade students’ of SMPN 1 Babadan in academic years 2015/2016. The total populations are 132 students from six classes that have different characters in every class.

### b) Sample

“Sample is a part of population”.<sup>18</sup>In this research, the researcher uses random sampling to take the sample from six classes of eighth grade students’.

The total sample of this research was 42 students from 35% in every class that chosen with lottery number absent of eighth grade students’ of SMP N 1 Babadan. The detail of sampling was follow:

**Table 3.1**  
**Tabulation of sampling technique**

<b>Present classes</b>	<b>100%</b>	<b>35%</b>
VIII A	22	7
VIII B	22	7
VIII C	22	7

---

<sup>17</sup> Suharsimi Arikunto, *Procedure Penelitian Suatu Pendekatan dan Praktik*, (Jakarta:PT Rineka Cipta, 1998), 108.

<sup>18</sup>Andhita Desi, *Penelitian Pendidikan Suatu Pendekatan Praktik dengan Menggunakan SPSS*, (Ponorogo: STAIN Ponorogo Press,2012), 42.



VIII D	22	7
VIII E	22	7
VIII F	22	7
Number of students	132	42

### C. Instrument of Data Collection

“Instrument is an implement used for a particular process, especially for delicate or scientific work”.<sup>19</sup> Research instrument is can be used to acquire, process and interpret information obtained from the respondents who do use the same measuring pattern. Instrument of data collection is the way get data in the research by the researcher.

In this research, research uses questionnaire and documentation to collect data.

#### a. Questionnaire

“Questionnaire is a written instrument consisting of questions to be answered or statements to be responded by respondents”.<sup>20</sup>

In this research, researcher used a questionnaire to find out score about students’ self-efficacy (X).

<sup>19</sup> Ibid, 75

<sup>20</sup>Moh. Adnan Latief. Research Methods on Language Learning An Introduction. (Malang: UM Press, 2014), 193

The questionnaire used the Likert scale, which contain five alternatives of answer. Using questioner which 20 number multiple choices and the researcher prepare 5 answers chooses in each question that counts as follow:

Sangatsetuju = 5 point

Setuju = 4 point

Ragu-ragu = 3 point

Tidaksetuju = 2 point

Sangattidaksetuju = 1 point

**Table 3.2**  
**Instrument of data collection**

Title	Variables	Indicator	No item of instrument	Technique
The correlation between students' self-efficacy and students'	X: students' self-efficacy	Orientation on the goal	1, 3, 14, 16, 17	Questionnaire
		Orientation control	8, 9, 10, 13, 15	

English achievement for eighth grade students of SMPN 1 BabadanPono		Developed under the circumstance	4, 11, 18, 19, 20	
rogo in academic year 2015/2016	Y: students' English achievement	Long will survive	2, 5, 6, 7, 12	Documentation
		Have a good achievement in learning English		

b. Documentation

The data have been discussed by the research the research. This data consist of materials that the researcher a major hands in producing data. In this research, documentation was chosen to collect the data to identify the students' achievement in English class.

In this research, documentation is used to get some data about students' English achievement for eighth grade students of SMPN 1 BabadanPonorogo in academic year 2015/2016.

## D. Technique of Data Collection

Data is the most important thing on the research. To get data, the researcher has to arrange the instrument and technique data that are needed to collect data. In the research, there are validity and reliability.

### 1. Validity

“Validity is an important key to effective research. Validity use technique of correlation product moment by Karl Pearson was used”.<sup>21</sup>“Validity always refers to the degree to which that evidence supports the inferences that are made from the score.”<sup>22</sup> The inferences regarding specific uses of a test are validated, not the test itself.

“By far most complex criterion of affective test and arguably the most important principle is validity. The extent to which inferences made from assessment results are appropriate meaningful and useful in term of the purpose of the assessment”.<sup>23</sup>

In this research, the researcher uses the item validity by using the formula product moment. The steps to calculate the validity are:

- a. Make the table of item analysis of all questions
- b. Apply the data to the formula of product moment

$$r_{xy} = \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{(n \sum x^2 - (\sum x)^2)(n \sum y^2 - (\sum y)^2)}}$$

---

<sup>21</sup>RetnoWidyaningrum. Statistik: edisirevisi. (Ponorogo: STAIN Press Ponorogo, 2013),105

<sup>22</sup>Donald Ary, Introduction to Research Eighth Edition, (USA: Wadsworth, 2006), 225.

<sup>23</sup> Douglas Brown. Language Assessment Principle and Classroom Practice. (New York:Longman, 2000),22

- c. Make interpretation of the correlation result ( $r_{xy}$ ) of each question.

When the coefficient correlation magnitude  $r_{xy} \geq 0,304$ , so the question item is valid, and when the coefficient correlation was under  $r_{xy} \leq 0,304$  so the question item is invalid. Finally, the result of question is:

**Table 3.3**  
**The result of self-efficacy questionnaire**

Number of Item	$r_t$	$r_{xy}$	Criteria
1	0,304	0,546	Valid
2	0,304	0,424	Valid
3	0,304	0,522	Valid
4	0,304	0,386	Valid
5	0,304	0,524	Valid
6	0,304	0,443	Valid
7	0,304	0,563	Valid
8	0,304	0,538	Valid
9	0,304	0,467	Valid
10	0,304	0,509	Valid
11	0,304	0,300	Invalid
12	0,304	0,478	Valid
13	0,304	0,605	Valid



14	0,304	0,474	Valid
15	0,304	0,602	Valid
16	0,304	0,304	Valid
17	0,304	0,482	Valid
18	0,304	0,567	Valid
19	0,304	0,413	Valid
20	0,304	0,342	Valid

To test the validity and reliability of the instruments, the researcher took a sample of 43 respondents uses 20 item of students' self-efficacy. Validity of the calculated item instrument to 20 items about students' self-efficacy variables, there were 19 items about which declared valid are the number 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20 the calculation result of data validity, as follow:<sup>24</sup>

## 2. Reliability

Reliability means dependability. It means that the numerical results produced by an indicator do not vary because of characteristic of the

---

<sup>24</sup>Appendix 1

measurement instrument itself.<sup>25</sup> “Reliability is the consistency of the score”.<sup>26</sup>

Reliability is consists of the result if an indicator or question is repeated in similar condition. To determine reliability of students self-efficacy in this research used Spearman Brown Formula.

In this technique, the researcher has to through the steps. The steps to measure the reliability are:

- a. Make a table of item analysis of all items
- b. Make the table of odd even split
- c. Applying the data to the formula of product moment

$$\text{Formula } r_{xy} = \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{(n \sum x^2 - (\sum x)^2)(n \sum y^2 - (\sum y)^2)}}$$

- d. Apply the result to the Spearman Brown formula

$$r_{11} = \frac{2r^{1/2}^{1/2}}{1 + r^{1/2}^{1/2}}$$

$r_{11}$  = coefficient reliability

$$\frac{2r^{1/2}^{1/2}}{1+r^{1/2}^{1/2}} = r_{xy} \text{ as the index of correlation between split-half}$$

- e. Consult the correlation result ( $r_i$ ) to the r table of product moment after find out the degrees of freedom (df). The formula is

$$df = N - nr$$

---

<sup>25</sup>W Lawrence Neuman, Basic of Social Research Quantitative and Qualitative Approach Second Edition (Bostom: Pearson Education, 2004), 116.

<sup>26</sup>Donald Ary, Introduction to Research Eighth Edition, (USA: Wadsworth, 2006), 225.

df = degrees of freedom

N = number

nr = number of variable

If the correlation is positive when  $r_{xy} > r_t$  so the instrument is reliable.

And if  $r_{xy} < r_t$  so the instrument is not reliable. From the each instrument in this research, the number of item is  $N=20$ , so  $df = (20 - 2) = 18$ . In the significant standard 5% is gotten  $r_t = 0,444$  and 1% is gotten  $r_t = 0,562$ . The result of students' self-efficacy  $r_i$  is  $0,795^{27}$ . It can be concluded that  $r_i > r_t$  ( $0,795 > 0,444$ ). So it's meaning that  $r_i > r_t$ . This questionnaire is reliable.

## E. Technique of Data Analysis

The data that have been collected by using research instrument to be analyzed. Before testing hypothesis, researcher have to prove that data are fulfilled the requirement. The requirement includes providing homogeneity test and normality test.

### 1. The Normality Test

Normality test used to identify the data is normal or not. The researcher used Kolmogorov-smirnov formula. After calculate the data, then

---

<sup>27</sup> Appendix 5

compared the maximum result of data analysis with Kolmogorov-smirnov.<sup>28</sup>

After that, make hypothesis:

- a.  $H_0$  received if  $a_1 \leq D_{table}(0,209)$
- b.  $H_0$  ignored if  $a_1 \geq D_{table}(0,209)$

Based on calculation above, it can be conclude that  $a_1$  is 0,1983 it means that  $0,1983 \leq 0,209$ , so  $H_0$  was received. It means that the data is normal.

## 2. The Homogeny Test

Homogeneities test is required before we compare several groups of data. This test is necessary first to test the homogeneity of variance in comparing two or more groups of data. Researcher used Harley Test to measure homogeneity. Harley Test is a simple test for homogeneity of the fairly compare two or more groups. The formula as follow:

$$F(\max) = \frac{\text{Var max}}{\text{Var min}} = \frac{SD_{\max}^2}{SD_{\min}^2}$$

After calculate of the data, then compare the result of data analysis with Hurley table. The research could make hypothesis:

- a.  $H_0$  received if  $F_{(\max)} < F_{(\max)} \text{ table}$
- b.  $H_0$  received if  $F_{(\max)} > F_{(\max)} \text{ table}$

---

<sup>28</sup>RetnoWidyaningrum, Statistika (Yogyakarta: PustaaFelisha, 2013), 208.

After determining normality and homogeneity, researcher do two steps to analyzed data as follow:

$$F_{\max} = \frac{\text{Var max}}{\text{Var min}} = \frac{SD_{\max}^2}{SD_{\min}^2}$$

From the calculation above,

$$F_{\max} = \frac{30,9756}{16,7375} = 1,8507$$

After calculate of the data, the compare the result of the data analysis with Harley table. The research could make hypothesis:

- a. Ho received if  $F_{\max} \leq F_{\max \text{ table}}$
- b. Ho ignored if  $F_{\max} \geq F_{\max \text{ table}}$

Based on the calculation above, it can be conclude that  $1,851 \leq 2,020$  so Ho wasreceived.it means that the data is homogeny.

After determining normality and homogeneity, researcher do two steps to analyzed data as follow:

1. This technique was used to identify the result of questionnaire about students' self-efficacy into three criteria. They are up rank (high), middle ran (moderate), and bottom rank (low). The formula are:<sup>29</sup>

- a.  $Mx + 1.SDx$

---

<sup>29</sup>Anas Sudijono, Pengantar Statistik Pendidikan (Jakarta: Raja Grafindo Persada, 2006), 175-176.



$M_x - 1.SD_x$

Notes:

$M_x$  = mean of students' self-efficacy (x)

$SD_x$  = standard deviation of students' self-efficacy (x)

b.  $M_y + 1.SD_y$

$M_y - 1.SD_y$

Notes:

$M_y$  = mean of students' achievement in English class (y)

$SD_y$  = standard deviation of students' English achievement

2. The technique of data analysis in this research in the Product Moment formula for the data 30 or more than 30. Thus, to identify whether there is significant influence of students' self-efficacy and students' English achievement in eighth grade students of SMP N 1 BabadanPonorogo.

The step of correlation Product Moment:

- a. Please determine I (interval) of each variable
- b. Making map of correlation
- c. Determine  $C_x$  '  $C_y$

$C_x$ ' = the correlation value of X variable,  $C_x' = \frac{\sum fx'}{N}$

$C_y$ ' = the correlation value of Y variable  $C_y' = \frac{\sum fy'}{N}$

- d. Determining standard of deviation

$$SD_x = \sqrt{\frac{\sum fx^2}{N} - \left(\frac{\sum fx'}{N}\right)^2}$$

$$SD_y = \sqrt{\frac{\sum fy^2}{N} - \left(\frac{\sum fy'}{N}\right)^2}$$

e. Determining  $r_{xy}$

$$r_{xy} = \frac{\frac{\sum fx'y'}{N} - Cx'Cy'}{SDx'SDy'}$$

$r_{xy}$  = the correlation coefficient

N = number of cases

f. Giving interpretation by:

1. Determining the correlation criteria by applying the indexes of correlation. It as follow:

**Table 3.4**

**The Index of correlation**

No.	Scale	Interpretation
1	0,800 – 1000	High correlation
2	0,600 – 0,800	Sufficient correlation
3	0,400 – 0,600	Fair correlation
4	0,200 – 0,400	Low correlation
5	0,000 – 0,200	Very low correlation

2. Determining the significant standard 5% and 1%.

## CHAPTER IV

### RESEARCH RESULT

#### A. Research Location

##### 1. Background of the school

SMPN 1 Babadan is one of education institution in Ponorogo. This school occupies an area 10.200 m<sup>2</sup> with building large 1.665m<sup>2</sup>. SMP N 1 Babadan registered as Accreditation school with score 93,08 (A) with the number 201051111001. SMP N 1 Babadan has 24 classrom with 539 students which are educated with 49 teachers.

##### 2. Geographical Location

SMPN 1 Babadan located on Purwosari village BabadanPonorogo. SMP N 1 Babadan complex take place north of center of Ponorogo suburb at north center Babadan government office.

##### 3. School Organization Structure

School organization at SMPN 1 Babadan contains: School Committee, Headmaster, Vice of Headmaster, Administration Staff, Vice of Curriculum, Vice of Students, Vice of Infrastructure, Vice of Public Relations, Guardianship of Class, Teacher, Students, and Community.

#### **4. Vision and Mission of School**

##### **a. Vision**

Excellence in achievement, knowledgeable science and technology, cultured, and Environmental care by Faith and piety.

##### **b. Mission**

- 1) Develop a program of active learning, creative, innovative and fun.
- 2) Cultivate the potential of students through ICT-based learning.
- 3) Cultivate the students' potential in the field of sports and the arts.
- 4) Creating discipline, orderliness, cleanliness, and noble character.
- 5) Preserving the environment, prevent pollution and environmental damage.
- 6) Create an environment that is clean, healthy, green, leafy, beautiful, comfortable and safe.
- 7) Good cooperation and synergy between the school community, and community agencies.

#### **B. Data Description**

This data is meant to determine how high score the students self-efficacy of the eighth grade students of SMP N 1 Babadan on students achievement in English class. The researcher used questionnaire technique toward the eighth grade students of SMP N 1 Babadan.


## 1. Data about score students' self-efficacy

In this description, to get the data the researcher conducted by giving a questionnaire about students' self-efficacy on the eighth grade students of SMP N1 BabadanPonorogo. The result from the students' self-efficacy of each student as followed:

**Table 4.1**  
**Score the students' self-efficacy to the eight grade students of SMP N 1 BabadanPonorogo.**

No	Name	Score (X)
1	AAAS	31
2	AW	29
3	HA	33
4	NKF	37
5	RFNT	36
6	TPA	31
7	WCI	37
8	AFBM	41
9	BPD	36
10	DES	21
11	EM	39
12	FYA	28





13	MHFR	26
14	YAS	42
15	APR	37
16	DDS	35
17	INI	38
18	LN	38
19	MLP	38
20	RE	38
21	REA	29
22	AS	32
23	DF	24
24	EHI	32
25	AW	26
26	LS	28
27	SNF	34
28	YFEA	32
29	ADC	33
30	BR	28
31	FCAW	38
32	NNI	42
33	RIA	27

34	RTY	37
35	VG	31
36	AAF	36
37	ARR	37
38	DSTS	39
39	RDA	34
40	VACC	41
41	WF	23
42	YRSP	23

From this table above can be concluding that the highest score for students' self-efficacy is 42 and lowest score is 21.

## 2. Data about students' English achievement

The researcher took the students English achievement from the English teacher. The score is stated as follows:


**Table 4.2**

**Score the students' English achievement for the eighth grade students of SMP N 1 BabadanPonorogo.**

No	Name	Score (X)
1	AAAS	80
2	AW	86



3	HA	80
4	NKF	80
5	RFNT	85
6	TPA	86
7	WCI	80
8	AFBM	85
9	BPD	86
10	DES	74
11	EM	80
12	FYA	87
13	MHFR	75
14	YAS	80
15	APR	75
16	DDS	81
17	INI	74
18	LN	84
19	MLP	86
20	RE	85
21	REA	80
22	AS	75
23	DF	85



24	EHI	81
25	IW	75
26	LS	86
27	SNF	80
28	YFEA	75
29	ADC	75
30	BR	75
31	FCAW	85
32	NNI	88
33	RIA	80
34	RTY	80
35	VG	80
36	AAF	85
37	ARR	81
38	DSTS	86
39	RDA	85
40	VACC	81
41	WF	82
42	YRSP	81

From this table above can be concluding that the highest score for students' English achievement is 88 and lowest score is 74.

### C. Data Analysis

In this chapter, the researcher measured the mean and standard deviation of students' self-efficacy and students' English achievement of the eighth grade students of SMP N 1 Babadan in academic year 2015/2016.

#### 1. The analysis of students' self-efficacy to the eighth grade students of SMP N 1 BabadanPonorogo

The researcher used questionnaire method to collect data of students' self-efficacy, that was delivered to classes students of SMP N 1 Babadan especially VIII class.

After knowing questionnaire score, the next step identify  $M_x$  and  $SD_x$  to determine of students' self-efficacy category of the eighth grade students which three categories is high, moderate and low. The analysis standard deviation could be seen clearly as the table bellows:

**Table 4.3**

**Analysis Data Standard Deviation of Students' Self-efficacy**

Interval	F	X	fX	$X - M_x = x$	$x^2$	$f \times x^2$
42-44	2	43	86	10,2142	104,3299	208,6598
39-41	4	40	160	7,2142	52,0447	208,1788



36-38	12	37	444	4,2142	17,5795	210,9540
33-35	4	34	136	1,2142	1,4743	5,8972
30-32	6	31	186	-1,7858	3,1891	19,1346
27-29	8	28	224	-4,7858	22,90398	183,2312
24-26	3	25	75	-7,7858	60,6187	181,8561
21-23	3	22	66	-10,7858	116,3249	348,9747
			1377			1366,8864

a. Look for Mx

$$M_x = \frac{\sum fx}{n}$$

$$= \frac{1377}{42}$$

$$= 32,7858$$

b. SDx =  $\sqrt{\frac{\sum f \cdot x^2}{n}}$

$$= \sqrt{\frac{1366}{42}}$$

$$= \sqrt{32,5449143}$$

$$= 5,7048$$

From the analysis above, it can be explained that  $M_x = 32,7858$  and  $SD_x = 5,7048$  to determine high, moderate and low. To look for the category, the researcher used formula:

$Mx + 1.SDx$  = high category for students' self-efficacy.

Between  $Mx - 1.SDx$  and  $Mx + 1.Sdx$  = moderate for students' self-efficacy.

$Mx - 1.SDx$  = low category for students' self-efficacy.

After that students' self-efficacy could be explained clearly as that formula bellow:

High category:

$$\begin{aligned} Mx + 1.SDx &= 32,7858 + 1. 5,7048 \\ &= 38,4906 = 38 \end{aligned}$$

Moderate category:

$$\begin{aligned} \text{Between } Mx - 1.SDx \text{ and } Mx + 1.Sdx \\ &= 28 \text{ up } 37 \end{aligned}$$

Low category:

$$\begin{aligned} Mx - 1.SDx &= 32,7858 - 1. 5,7048 \\ &= 27,0810 = 27 \end{aligned}$$

From the calculation above, it can be identified that if the score is more than 39, the students' self-efficacy is high. While the score less than 27, it mean students' self-efficacy has poor category.

**Table 4.4**

**Category of students' self-efficacy**

<b>Interval</b>	<b>F</b>	<b>Category</b>	<b>Precent</b>
-----------------	----------	-----------------	----------------

38 – 42	10	High	23,8%
28 – 37	24	Moderate	57,1%
27 – 21	8	Low	19,1%
	<b>F = 42</b>		<b>100 %</b>

- a) The percentage of students' self-efficacy for good level is 23,8%. It means that there are 10 students is high category.
- b) The percentage of students' self-efficacy for enough level is 57,1%. It means that there are 24 students is moderate category.
- c) The percentage of students' self-efficacy for less level is 19,1%.it means that there are 8 students is low category.

**2. The analysis of students' English achievement to the eighth grade students of SMP N 1 BabadanPonorogo.**

The researcher used documentation method to get data of students' English achievement that was delivered from teacher VIII class of SMP N 1 Babadan.

After get students' English achievement, then next step identify MY and SDy to determine of students achievement in English classcategory of the eighth grade students of SMP N 1 Babadan which three category is high,

moderate, and low. The analysis standard deviation could be seen clearly as the table bellows:

**Table 4.5**  
**Analysis Data Standard Deviation of Students' English Achievement**

Interval	F	Y	Fy	Y-my=y	y <sup>2</sup>	f y <sup>2</sup>
87-88	4	87,5	350	8,1881	67,0450	268,18
85-86	13	85,5	1111,5	6,1881	38,2926	497,8038
83-84	1	83,5	83,5	4,1881	17,5402	17,5402
81-82	6	81,5	489	2,1881	4,7878	28,7268
79-80	9	79,5	715,5	0,1881	0,0354	0,3186
77-78	0	77,5	0	-1,8119	3,2830	0
75-76	7	75,5	528,5	-3,8119	14,5306	101,7142
73-74	2	73,5	147	-5,8119	33,7782	67,5564
	N=40		3425			981,84

a. Look for My

$$My = \frac{\sum fy}{n}$$

$$= \frac{3425}{42}$$

$$= 81,547619$$

b. Look for SDy

$$\begin{aligned}
 SDy &= \sqrt{\frac{\Sigma f \cdot x^2}{n}} \\
 &= \sqrt{\frac{981,84}{42}} \\
 &= \sqrt{23,377143} \\
 &= 4,834991
 \end{aligned}$$

After determining  $My = 81,547619$  and  $SDy = 4,834991$ , the researcher determines, high, moderate, and low for students' English achievement. To look for the category, the researcher used to formula:

$My + 1.SDy =$  high category for students' English achievement.

Between  $My + 1.SDy$  and  $My - 1.SDy =$  moderate category for students' English achievement.

$My - 1.SDy =$  low category for students' English achievement.

After that students' English achievement could be explained clearly as that formula bellow:

High Category:

$$\begin{aligned}
 My + 1.SDy &= 81,547619 + 1.4,834991 \\
 &= 86,38261 = 86 \text{ (rounded)}
 \end{aligned}$$

Moderate Category:

Between  $My + 1.SDy$  and  $My - 1.SDy$

$$= 78 \text{ up to } 85$$

Poor Category:

$$\begin{aligned} My - 1.SDy &= 81,547619 - 1.4,83491 \\ &= 76,712628 = 77 \text{ (rounded)} \end{aligned}$$

From the calculation above, it can identify that if the score is more than 84, the students' English achievement is high. While the score less than 77, it means students' English achievement has low category.

**Table 4.6**  
**Category of Students' achievement in English class**

Interval	F	Category	Percent
84 – 86	8	High	19,04%
76 – 83	25	Moderate	59,50%
74 – 75	9	Low	21,46%
	<b>F = 42</b>		<b>100%</b>

- a) The percentage of students' English achievement for good level is 19,04%. It means that there are 8 students is high category.
- b) The percentage of students' English achievement for enough level is 59,10%. It means that there are 25 students is moderate category.
- c) The percentage of students' English achievement for less level is 21,46%. It means that there are 9 students is low category.

**3. The correlation between students' self-efficacy and students' English achievement for eighth grade students of SMP N 1 BabadanPonorogo.**



For the analysis of data, before, the researcher will analyze pre-requirement testing (test of normality and homogeneity) and hypothesis.

**a. Normality Test**

In this test, there are two hypothesis as follow:

- 1) Null Hypothesis (Ho) : the data is normally distributed.
- 2) Alternative Hypothesis (Ha) : the data is not normally distributed.

To the test the hypo thesis, the researcher used kolmogorov-Smornov.

The result as bellow:

$$Mx = 33,02$$

$$SDx = 46,54$$

Ujihipotesis

$$D_{(0,05,42)} = \frac{1,36}{\sqrt{n}}$$

$$= \frac{1,36}{\sqrt{42}}$$

$$= \frac{1,36}{6,4807407} = 0,209852 = 0,209$$

Based on the calculation, the data is normality distributed because

$$a_1 \leq D_{table} ; 0,198 \leq 0,209.$$

**b. Homogeneity Test**

$$SDx = \frac{\sum f x^2}{n} - \left( \frac{\sum f x}{n} \right)^2$$

$$\begin{aligned}
&= \frac{47105}{42} - \left(\frac{1387}{42}\right)^2 \\
&= 1121,5476 - 1090,5720 \\
&= 30,9756
\end{aligned}$$

$$\begin{aligned}
SDy &= \frac{\sum f y^2}{n} - \left(\frac{\sum f y}{n}\right)^2 \\
&= \frac{283275}{42} - \left(\frac{3445}{42}\right)^2 \\
&= 6744,6429 - 6727,9054 \\
&= 16,7375
\end{aligned}$$

$$db = (n-1;k) = (42-1;k)$$

$$= (41;k)$$

$$Ho = F_{\max \text{ hit}} < F_{\max \text{ table}}$$

$$= 1,851 < 2,02$$

### c. Correlation coefficient analysis

Determining hypothesis (Ho)

#### 1. Null Hypothesis

There is no significant correlation between students' self-efficacy and students' English achievement for eight grade students of SMPN 1 Babadan in academic year 2015/2016.

## 2. Alternative Hypothesis

There is significant correlation between students' self-efficacy and students' English achievement for eight grade students of SMPN 1 Babadan in academic year 2015/2016.

- a. Determining  $i$  (interval) of each variable. The formula is interval variable X and variable Y:

$$\begin{aligned}k &= 1 + 3,322 \log n \\&= 1 + 3,322 \log 42 \\&= 1 + 3,322 \times 1,6232492904 \\&= 1 + 5,39243414271 \\&= 6,39243414271 = 7\end{aligned}$$

$$H = 42 \quad L = 20$$

$$\begin{aligned}R &= H - L + 1 \\&= 42 - 20 + 1 = 3\end{aligned}$$

$$\frac{R}{k} = i$$

$$\frac{3}{7} = 0,429$$

$$\begin{aligned}k &= 1 + 3,322 \log n \\&= 1 + 3,322 \log 42 \\&= 1 + 3,322 \times 1,6232492904\end{aligned}$$

$$= 1 + 5,39243414271$$

$$= 6,39243414271 = 7$$

$$H = 88 \quad L = 74$$

$$R = H - L + 1$$

$$= 88 - 74 + 1 = 14$$

$$\frac{R}{k} = i$$

$$\frac{14}{7} = 4$$

b. Map correlation<sup>30</sup>

c. Determining  $Cx'$ ' $Cy'$

$$Cx = \frac{\sum fx'}{n}$$
$$= \frac{25}{42} = 0,59523891$$

$$Cx = \frac{\sum fx'}{n}$$
$$= \frac{43}{42} = 1,0238095$$

d. Determine standard deviation

$$SDx = i \sqrt{\frac{\sum fx'^2}{n} - \left(\frac{\sum fx'}{n}\right)^2}$$

$$= 1 \sqrt{\frac{159}{42} - \left(\frac{25}{42}\right)^2}$$

$$= 1 \sqrt{3,78571429 - 0,3543084}$$

$$= 1 \sqrt{3,43140589} = 1,85240543$$

$$SDy = i \sqrt{\frac{\sum f x'^2}{n} - \left(\frac{\sum f x'}{n}\right)^2}$$

$$= 1 \sqrt{\frac{233}{42} - \left(\frac{43}{42}\right)^2}$$

$$= 1 \sqrt{5,54761905 - 1,02380952}$$

$$= 1 \sqrt{4,52380953} = 2,1269249$$

e. Determine  $r_{xy}$

$$r_{xy} = \frac{\frac{\sum x'y'}{n} - Cx'y'}{SDx' SDy'}$$

$$= \frac{\frac{138}{42} - (0,5952381)(1,0238095)}{1,85240543 \times 2,1269249}$$

$$= \frac{3,28571429 - 0,60941041}{3,93992723}$$

$$= \frac{2,67630387}{3,93992723} = 0,67927749 = 680 \text{ (rounded)}$$

df=N-nr

$$=42-2$$

=40

f. The significant standard product moment 5% or 1%

1) The significant standard product moment of 5% N=40 is 0,304

2) The significant standard product moment of 1% N=40 is 0,393

From the calculation above, it was known that  $r_{xy}=0,680$  and  $df=40$ , if compare with table of  $r_{xy}$  the degree significance of 5% and 1%, then the correlation between students' self-efficacy and students' English achievement is significant ( $r_{xy} : r_t = 0,680 > 0,304$  and  $r_{xy} = 0,680 > 0,393$ ).

**Table 4.7**  
**Coefficient Correlation Interpretation**

No.	Scale	Interpretation
1	0,800 – 1000	High correlation
2	0,600 – 0,800	Sufficient correlation
3	0,400 – 0,600	Fair correlation
4	0,200 – 0,400	Low correlation
5	0,000 – 0,200	Very low correlation

Based on the table above it can be seen that the correlation the value of  $r_{xy}=0,680$  is in the interval of 0,600-0,800, this means that the



correlation belongs to “sufficient correlation”. In other words, there is positive correlation between variable X and variable Y.

As mentioned before, from the result of calculation, the value of  $r_{xy}$  is 0,680 and df is 40. If it is compared with the  $r_t$  at the degree of significance 5% (0,304) and 1% (0,393), the correlation between students’ self-efficacy and students’ achievement in English class is significant ( $r_{xy}:r_t=0,680>0,304$  and  $r_{xy}=0,680>0,393$ ). So, the null hypothesis ( $H_0$ ) of the research is rejected and alternative hypothesis ( $H_a$ ) is accepted. The meaning of this statement is the students’ self-efficacy has a significant correlation with students’ English achievement.

#### **D. Discussion and Interpretation**

From the description of the data, there is a significant correlation between students’ Self-efficacy and students’ English achievement. It means that the sufficient self-efficacy in learning English, the better score will be achieved by the students. This means that students’ who have sufficient Self-efficacy tried to pursue knowledge more than those who have the low one. They enjoy their learning. They always feel happy and ready to do any task given by the teacher. They do not only learn English in school but also out of the school. They try to practice what they learn at school to the outside of the school.

## **CHAPTER V**

### **CONCLUSION**

#### **A. Conclusion**

Based on the data analysis and discussion above, it can be concluded as follows:

The students' self-efficacy to the eighth grade students of SMP N 1 Babadan is moderate. The average 42 students, 10 students (23,8%) get high categorization, 24 students (57,1%) get moderate categorization, and 8 students (19,1%) get the low categorization. So, students of SMP N 1 Babadan especially in VIII class have moderate categorization in students' self-efficacy with the total number is 24 (57,1%).

The students' English achievement to the eighth grade students of SMP N 1 Babadan is high. The average 42 students, 8 students (19,04%) get high categorization, 25 students (59,50%) get moderate categorization, and 9 students (21,46%) get the low categorization. So, students of SMP N 1 Babadan especially VIII class have moderate categorization in students' English achievement. With the total number is 25 (59,50%).

The analysis of the data, shows that there is positive correlation of students' self-efficacy and students' English achievement to the eighth grade of SMP N 1 BabadanPonorogo. The coefficient correlation is 0,680 it is higher than the coefficient  $r_t$  at the significant of 5% 0,304/ in other words, the students who got sufficient score in students' self-efficacy as well as got sufficient score in students' English achievement.

## **B. Recommendation**

Based on the research result, the researcher gives some recommendation such as:

1. The English teachers are expected to motivate their students to increase their interest in English learning.
2. Make the atmosphere of the class more conducive in order to make the teaching-learning process more alive, full of fun for all students.
3. As the condition of student in English class, they are often shy being laughed by their friends. So, the teacher must give motivation to be more relaxed in English learning and tell them do not to be afraid to make mistake, because that is a process to gain success.
4. The students, they are expected to increase their interest in English achievement by learn more in a home.

## BIBLIOGRAPHY

Alwisol.PsikologiKepribadian.Malang: UMM Press, 2009.

Arikunto, Suharsimi.Procedure Penelitian Suatu Pendekatan dan Praktik.  
Jakarta:PT Rineka Cipta, 1998.

Ary, Donald.Introduction to Research Eighth Edition. USA: Wadsworth, 2006.

Bandura, Albert. Self-efficacy, Encyclopedia of mental health.San Diego: Academic  
Press, 1998.

Birhaniearegu,Bekele. Enhancing self-regulated learning in Teaching spoken  
communication: Does it Affect Speaking Efficacy and Performance?  
(Electronic Journal of foreign Language Teaching), 2013.

Brown , Douglas. Language Assessment Principle and Classroom Practice.New  
York:Longman, 2000.

Desi, Andhita.Penelitian Pendidikan Suatu Pendekatan Praktik dengan  
Menggunakan SPSS. Ponorogo: STAIN Ponorogo Press, 2012.

[http://edutechwiki.unige.ch/en/self-efficacy\\_theory](http://edutechwiki.unige.ch/en/self-efficacy_theory)

[http://nuringplanet.com/theory/self\\_eticacy\\_theory\\_html](http://nuringplanet.com/theory/self_eticacy_theory_html)

Kumar Signh ,Yogesh. Fundamental of Research Methodology and Statistic.  
New York: New Age International, 2006.

Latief ,Moh. Adnan.Research Methods on Language Learning An Introduction.  
Malang: UM Press, 2014.

Lunenburg, Fred C. Self-efficacy in the workplace: implication for motivation and performance (International Journal of Management, Business and Administration Volume), Sam Houston State University, 2011.

Neuman, W Lawrence. Basic of Social Research Quantitative and Qualitative Approach Second Edition. Boston: Pearson Education, 2004.

Oxford learners pocket dictionary fourth edition, New York: Oxford University Press, 2010.

Schunk, Dale H and Pajares, Frank. The Development of Academic Self-Efficacy.

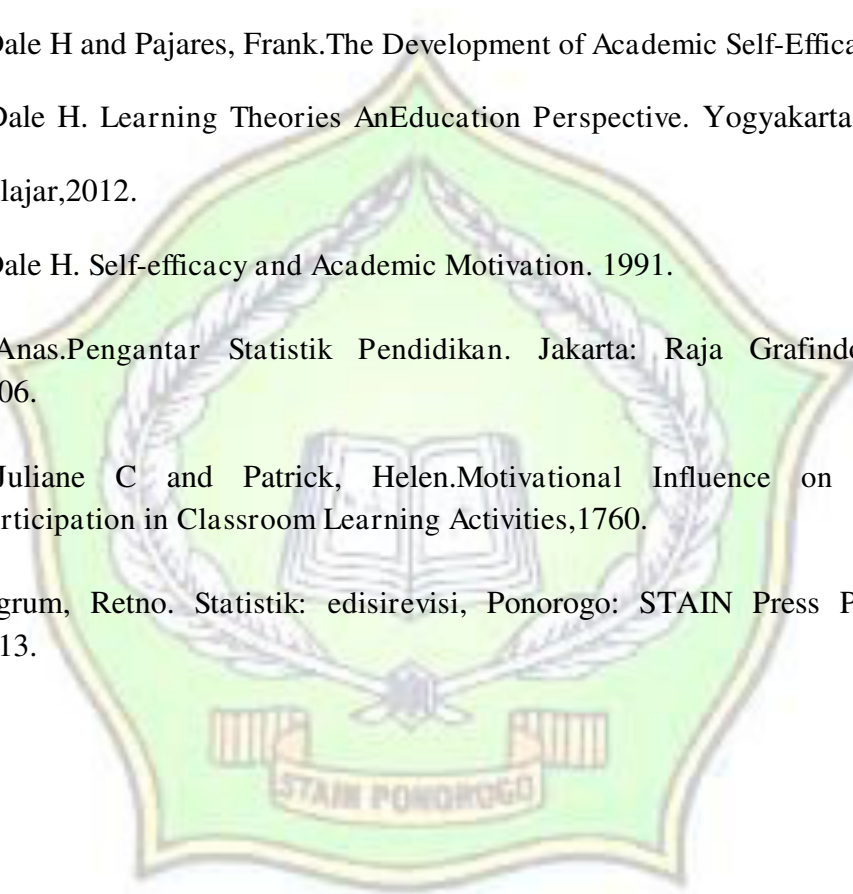
Schunk, Dale H. Learning Theories An Education Perspective. Yogyakarta: Pustaka Belajar, 2012.

Schunk, Dale H. Self-efficacy and Academic Motivation. 1991.

Sudijono, Anas. Pengantar Statistik Pendidikan. Jakarta: Raja Grafindo Persada, 2006.

Turner, Juliane C and Patrick, Helen. Motivational Influence on Students Participation in Classroom Learning Activities, 1760.

Widyaningrum, Retno. Statistik: edisi revisi, Ponorogo: STAIN Press Ponorogo, 2013.



Appendix 1

**Questionnaire**

No bangku (absen) : .....

Bacalah pernyataan-pernyataan berikut dengan seksama, lalu tunjukkan mana yang paling sesuai dengan diri anda dan berikan jawaban dengan memberikan tanda (√) pada salah satu pilihan berikut:

SS : Sangat Setuju

S : Setuju

TT : Tidak tahu

TS : Tidak Setuju

STS : Sangat tidak Setuju

No	Pernyataan	S	S	T	T	S
		S		T	S	T
1	Saya selalunya yakin sendiri untuk dapat menyelesaikan tugas bahasa Inggris dengan baik.					
2	Meskipun bahasa Inggris dianggap sulit, saya yakin dapat memahaminya.					
3	Saya yakin akan mendapatkan prestasi yang memuaskan di kelas.					
4	Saya biasanya berusaha dengan maksimal untuk mengerjakan tugas bahasa Inggris sampai selesai.					



5	Sayayakinsoalbahasainggris yang dapatsayakerjakanjauhlebihbanyakdari yang tidakdapatsayakerjakan.					
6	Meskipun tugas bahasa inggris yang sayakerjakansulit,sayapercayadapatmenyelesaikannya.					
7	Bagisayatugas yang diberianoleh guru akanmemacuyasabelajarlebihtekun.					
8	Sayamerasabanggaketikaberhasilmenyelesaiantugasbahasain ggris yang lebihsulit.					
9	Sayatidaktenangsebelumbisamenyelesaiansoalbahasainggris.					
10	Sayalebihberhasildibandingkankebanyaansiswadalammenye lesaikantugasbahasainggris.					
11	Sayabiasamembantutemandalamkesulitanmemahamimaterib ahasainggris.					
12	Sayatidaperbahmenyerahmengerjakantugassampaisayamene mukanjawabannya.					
13	Meskipunsayamemilikibanyakkekurangan, sayayakinakanberhasildalampelajaranbahasainggris.					
14	Menurut saya, bahasaingrisadalahpelajaran yang paling menyenangkan.					
15	Sayalebihyakindenganjawabansendiridaripadaharusmencont ek.					
16	Sayaberaniberpartisipasidalamdiskusi di kelasbersamateman-teman.					
17	Rasa ingintahusayasering kali tergerakoleh pertanyaan yang dikemukaandansituasi-situasi yang diberikan guru padasaatpembelajaran.					
18	Jikamateri yang di ajarkankurangdimengerti, sayatidakseganbertanyakepada guru.					
19	SayayakinmampumemahamidankemengikutipelajaranBahasaI nggrisdenganbaidanlancar.					
20	SayayakinmampumengikutikegiatanbelajarmengajarBahasaI nggrisdenganbaik.					

\*TERIMA KASIH ATAS PARTISIPASINYA\*

Table of questionnaire validity

Res	Item Number															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	4	4	3	3	1	4	4	4	4	5	4	4	3	5	1	2
2	5	5	5	2	2	2	5	2	2	5	1	4	2	4	5	5
3	2	3	3	4	4	3	4	4	3	3	2	4	4	4	5	3
3	2	2	3	3	2	1	3	2	2	1	4	3	4	2	4	1
5	2	3	5	4	2	3	4	4	4	2	2	2	4	5	4	2
6	4	3	3	3	3	4	4	3	3	2	4	4	3	4	3	3
7	3	5	3	5	5	3	4	4	3	3	3	4	5	2	5	3
8	3	2	4	3	3	2	4	4	4	2	4	4	4	5	5	2
9	2	3	2	3	3	2	4	2	5	4	4	2	5	2	5	2
10	2	3	1	3	3	2	3	4	1	2	2	3	1	2	3	3
11	3	3	5	5	5	2	4	2	2	5	4	4	5	2	5	2
12	2	1	3	3	3	2	4	2	4	3	3	3	2	1	3	2
13	1	2	3	3	4	3	1	2	2	2	4	4	3	4	4	2
14	2	1	3	3	4	5	5	4	4	2	4	2	5	5	5	3
15	2	3	4	3	4	5	4	4	2	4	2	4	4	3	5	1
16	2	2	4	5	4	5	4	4	3	3	4	3	4	4	3	4
17	4	4	4	4	4	4	3	4	4	4	3	4	4	4	4	4
18	4	4	4	4	4	4	3	4	4	4	3	4	4	4	4	4
19	5	5	3	5	3	5	4	5	3	2	4	3	4	3	5	4
20	4	3	3	2	3	5	2	3	5	4	4	3	5	5	5	5
21	3	4	2	3	3	4	3	4	3	3	3	4	4	3	3	4
22	3	2	3	2	3	5	3	3	4	4	4	4	3	4	4	5
23	2	3	2	3	2	3	2	3	2	4	4	2	2	2	2	2
24	3	4	4	4	3	3	2	5	2	5	3	5	3	4	4	4
25	3	3	2	3	3	4	3	4	4	4	3	3	3	1	2	2
26	2	4	3	4	2	2	3	3	3	1	3	2	1	2	3	3
27	3	3	3	3	4	2	4	3	2	3	5	4	3	5	3	5
28	4	3	4	5	2	3	4	1	1	2	2	3	4	5	2	3
29	4	4	4	3	4	5	3	5	4	3	2	2	1	1	4	3
30	2	2	2	2	2	3	3	2	3	2	3	3	4	2	4	3
31	3	4	4	3	4	3	4	3	4	3	4	3	4	4	3	3
32	4	3	3	5	4	3	5	4	4	5	5	4	4	3	4	3
33	2	2	2	4	3	1	1	4	1	2	2	2	3	4	5	3
34	3	5	4	3	4	2	3	4	5	2	4	2	3	5	3	4
35	3	3	3	2	3	4	2	3	4	3	2	4	3	1	2	3

36	4	4	4	4	4	3	3	4	3	4	3	4	4	3	4	3
37	3	3	4	3	4	4	5	4	3	2	2	3	4	3	4	3
38	3	3	4	5	5	5	4	3	4	5	4	5	3	4	4	4
39	3	3	4	3	4	3	4	2	3	4	4	3	2	3	2	2
40	3	4	3	4	4	3	4	3	5	4	5	4	4	3	4	4
41	2	2	4	4	4	3	1	1	2	2	1	2	1	2	2	3
42	2	3	2	3	2	3	1	1	3	2	3	2	1	4	3	4
N=42	122	132	138	145	139	137	140	136	133	131	136	138	139	138	154	130



Appendix 3

Table of questionnaire reliability

Res	Nomor Item Ganjil										Total (X)
	1	3	5	7	9	11	13	15	17	19	
1	4	3	1	4	4	4	3	1	5	2	31
2	5	5	2	5	2	1	2	5	1	1	29
3	2	3	4	4	3	2	4	5	3	3	33
3	2	3	2	3	2	4	4	4	1	2	27
5	2	5	2	4	4	2	4	4	5	4	36
6	4	3	3	4	3	4	3	3	2	2	31
7	3	3	5	4	3	3	5	5	3	3	37
8	3	4	3	4	4	4	4	5	5	5	41
9	2	2	3	4	5	4	5	5	1	5	36
10	2	1	3	3	1	2	1	3	2	3	21
11	3	5	5	4	2	4	5	5	1	5	39
12	2	3	3	4	4	3	2	3	1	3	28
13	1	3	4	1	2	4	3	4	1	3	26
14	2	3	4	5	4	4	5	5	5	5	42
15	2	4	4	4	2	2	4	5	5	5	37
16	2	4	4	4	3	4	4	3	3	4	35
17	4	4	4	3	4	3	4	4	4	4	38
18	4	4	4	3	4	3	4	4	4	4	38
19	5	3	3	4	3	4	4	5	4	3	38
20	4	3	3	2	5	4	5	5	5	2	38
21	3	2	3	3	3	3	4	3	4	1	29
22	3	3	3	3	4	4	3	4	3	2	32
23	2	2	2	2	2	4	2	2	5	1	24
24	3	4	3	2	2	3	3	4	4	4	32
25	3	2	3	3	4	3	3	2	1	2	26
26	2	3	2	3	3	3	1	3	4	4	28
27	3	3	4	4	2	5	3	3	4	3	34
28	4	4	2	4	1	2	4	2	4	5	32
29	4	4	4	3	4	2	1	4	2	5	33
30	2	2	2	3	3	3	4	4	3	2	28
31	3	4	4	4	4	4	4	3	4	4	38
32	4	3	4	5	4	5	4	4	4	5	42
33	2	2	3	1	1	2	3	5	4	4	27
34	3	4	4	3	5	4	3	3	4	4	37
35	3	3	3	2	4	2	3	2	5	4	31
36	4	4	4	3	3	3	4	4	3	4	36

37	3	4	4	5	3	2	4	4	4	4	37
38	3	4	5	4	4	4	3	4	4	4	39
39	3	4	4	4	3	4	2	2	4	4	34
40	3	3	4	4	5	5	4	4	5	4	41
41	2	4	4	1	2	1	1	2	2	4	23
42	2	2	2	1	3	3	1	3	3	3	23
N=42	122	138	139	140	133	136	139	154	141	145	1356

Res	Nomor Item Genap										Total (Y)
	2	4	6	8	10	12	14	16	18	20	
1	4	3	4	4	5	4	5	2	4	3	38
2	5	2	2	2	5	4	4	5	4	4	37
3	3	4	3	4	3	4	4	3	4	3	35
3	2	3	1	2	1	3	2	1	2	3	20
5	3	4	3	4	2	2	5	2	4	3	32
6	3	3	4	3	2	4	4	3	3	2	31
7	5	5	3	4	3	4	2	3	4	3	36
8	2	3	2	4	2	4	5	2	4	4	32
9	3	3	2	2	4	2	2	2	4	5	29
10	3	3	2	4	2	3	2	3	4	4	30
11	3	5	2	2	5	4	2	2	3	5	33
12	1	3	2	2	3	3	1	2	4	3	24
13	2	3	3	2	2	4	4	2	2	1	25
14	1	3	5	4	2	2	5	3	4	3	32
15	3	3	5	4	4	4	3	1	4	4	35
16	2	5	5	4	3	3	4	4	3	4	37
17	4	4	4	4	4	4	4	4	4	4	40
18	4	4	4	4	4	4	4	4	4	4	40
19	5	5	5	5	2	3	3	4	3	4	39
20	3	2	5	3	4	3	5	5	3	5	38
21	4	3	4	4	3	4	3	4	4	2	35
22	2	2	5	3	4	4	4	5	3	3	35
23	3	3	3	3	4	2	2	2	2	1	25
24	4	4	3	5	5	5	4	4	4	4	42
25	3	3	4	4	4	3	1	2	2	2	28
26	4	4	2	3	1	2	2	3	2	3	26

27	3	3	2	3	3	4	5	5	4	3	35
28	3	5	3	1	2	3	5	3	2	4	31
29	4	3	5	5	3	2	1	3	4	3	33
30	2	2	3	2	2	3	2	3	3	3	25
31	4	3	3	3	3	3	4	3	4	4	34
32	3	5	3	4	5	4	3	3	4	4	38
33	2	4	1	4	2	2	4	3	4	3	29
34	5	3	2	4	2	2	5	4	5	3	35
35	3	2	4	3	3	4	1	3	2	3	28
36	4	4	3	4	4	4	3	3	4	4	37
37	3	3	4	4	2	3	3	3	5	5	35
38	3	5	5	3	5	5	4	4	3	4	41
39	3	3	3	2	4	3	3	2	3	5	31
40	4	4	3	3	4	4	3	4	5	3	37
41	2	4	3	1	2	2	2	3	3	4	26
42	3	3	3	1	2	2	4	4	3	2	27
N=42	132	145	137	136	131	138	138	130	146	143	1376





Table of questionnaire reliability

Res	Nomor Item Ganjil										Total (X)
	1	3	5	7	9	11	13	15	17	19	
1	4	3	1	4	4	4	3	1	5	2	31
2	5	5	2	5	2	1	2	5	1	1	29
3	2	3	4	4	3	2	4	5	3	3	33
3	2	3	2	3	2	4	4	4	1	2	27
5	2	5	2	4	4	2	4	4	5	4	36
6	4	3	3	4	3	4	3	3	2	2	31
7	3	3	5	4	3	3	5	5	3	3	37
8	3	4	3	4	4	4	4	5	5	5	41
9	2	2	3	4	5	4	5	5	1	5	36
10	2	1	3	3	1	2	1	3	2	3	21
11	3	5	5	4	2	4	5	5	1	5	39
12	2	3	3	4	4	3	2	3	1	3	28
13	1	3	4	1	2	4	3	4	1	3	26
14	2	3	4	5	4	4	5	5	5	5	42
15	2	4	4	4	2	2	4	5	5	5	37
16	2	4	4	4	3	4	4	3	3	4	35
17	4	4	4	3	4	3	4	4	4	4	38
18	4	4	4	3	4	3	4	4	4	4	38
19	5	3	3	4	3	4	4	5	4	3	38
20	4	3	3	2	5	4	5	5	5	2	38
21	3	2	3	3	3	3	4	3	4	1	29
22	3	3	3	3	4	4	3	4	3	2	32
23	2	2	2	2	2	4	2	2	5	1	24
24	3	4	3	2	2	3	3	4	4	4	32
25	3	2	3	3	4	3	3	2	1	2	26
26	2	3	2	3	3	3	1	3	4	4	28
27	3	3	4	4	2	5	3	3	4	3	34
28	4	4	2	4	1	2	4	2	4	5	32
29	4	4	4	3	4	2	1	4	2	5	33
30	2	2	2	3	3	3	4	4	3	2	28
31	3	4	4	4	4	4	4	3	4	4	38
32	4	3	4	5	4	5	4	4	4	5	42
33	2	2	3	1	1	2	3	5	4	4	27
34	3	4	4	3	5	4	3	3	4	4	37
35	3	3	3	2	4	2	3	2	5	4	31
36	4	4	4	3	3	3	4	4	3	4	36

37	3	4	4	5	3	2	4	4	4	4	37
38	3	4	5	4	4	4	3	4	4	4	39
39	3	4	4	4	3	4	2	2	4	4	34
40	3	3	4	4	5	5	4	4	5	4	41
41	2	4	4	1	2	1	1	2	2	4	23
42	2	2	2	1	3	3	1	3	3	3	23
N=42	122	138	139	140	133	136	139	154	141	145	1356

Res	Nomor Item Genap										Total (Y)
	2	4	6	8	10	12	14	16	18	20	
1	4	3	4	4	5	4	5	2	4	3	38
2	5	2	2	2	5	4	4	5	4	4	37
3	3	4	3	4	3	4	4	3	4	3	35
3	2	3	1	2	1	3	2	1	2	3	20
5	3	4	3	4	2	2	5	2	4	3	32
6	3	3	4	3	2	4	4	3	3	2	31
7	5	5	3	4	3	4	2	3	4	3	36
8	2	3	2	4	2	4	5	2	4	4	32
9	3	3	2	2	4	2	2	2	4	5	29
10	3	3	2	4	2	3	2	3	4	4	30
11	3	5	2	2	5	4	2	2	3	5	33
12	1	3	2	2	3	3	1	2	4	3	24
13	2	3	3	2	2	4	4	2	2	1	25
14	1	3	5	4	2	2	5	3	4	3	32
15	3	3	5	4	4	4	3	1	4	4	35
16	2	5	5	4	3	3	4	4	3	4	37
17	4	4	4	4	4	4	4	4	4	4	40
18	4	4	4	4	4	4	4	4	4	4	40
19	5	5	5	5	2	3	3	4	3	4	39
20	3	2	5	3	4	3	5	5	3	5	38
21	4	3	4	4	3	4	3	4	4	2	35
22	2	2	5	3	4	4	4	5	3	3	35
23	3	3	3	3	4	2	2	2	2	1	25
24	4	4	3	5	5	5	4	4	4	4	42
25	3	3	4	4	4	3	1	2	2	2	28
26	4	4	2	3	1	2	2	3	2	3	26

27	3	3	2	3	3	4	5	5	4	3	35
28	3	5	3	1	2	3	5	3	2	4	31
29	4	3	5	5	3	2	1	3	4	3	33
30	2	2	3	2	2	3	2	3	3	3	25
31	4	3	3	3	3	3	4	3	4	4	34
32	3	5	3	4	5	4	3	3	4	4	38
33	2	4	1	4	2	2	4	3	4	3	29
34	5	3	2	4	2	2	5	4	5	3	35
35	3	2	4	3	3	4	1	3	2	3	28
36	4	4	3	4	4	4	3	3	4	4	37
37	3	3	4	4	2	3	3	3	5	5	35
38	3	5	5	3	5	5	4	4	3	4	41
39	3	3	3	2	4	3	3	2	3	5	31
40	4	4	3	3	4	4	3	4	5	3	37
41	2	4	3	1	2	2	2	3	3	4	26
42	3	3	3	1	2	2	4	4	3	2	27
N=42	132	145	137	136	131	138	138	130	146	143	1376



Calculate Each Item on the Validity of Questionnaire

Validity instrument no 1

Res	x	y	Xy	x2	y2
1	4	69	276	16	4761
2	5	66	330	25	4356
3	2	68	136	4	4624
3	2	47	94	4	2209
5	2	68	136	4	4624
6	4	62	248	16	3844
7	3	73	219	9	5329
8	3	73	219	9	5329
9	2	65	130	4	4225
10	2	51	102	4	2601
11	3	72	216	9	5184
12	2	52	104	4	2704
13	1	51	51	1	2601
14	2	74	148	4	5476
15	2	72	144	4	5184
16	2	72	144	4	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	5	77	385	25	5929
20	4	76	304	16	5776
21	3	64	192	9	4096
22	3	67	201	9	4489
23	2	49	98	4	2401
24	3	74	222	9	5476
25	3	54	162	9	2916
26	2	54	108	4	2916
27	3	69	207	9	4761
28	4	63	252	16	3969
29	4	66	264	16	4356
30	2	53	106	4	2809
31	3	72	216	9	5184
32	4	80	320	16	6400
33	2	56	112	4	3136
34	3	72	216	9	5184
35	3	59	177	9	3481

Validity instrument no 2

Res	x	y	Xy	x2	y2
1	4	69	276	16	4761
2	5	66	330	25	4356
3	3	68	204	9	4624
3	2	47	94	4	2209
5	3	68	204	9	4624
6	3	62	186	9	3844
7	5	73	365	25	5329
8	2	73	146	4	5329
9	3	65	195	9	4225
10	3	51	153	9	2601
11	3	72	216	9	5184
12	1	52	52	1	2704
13	2	51	102	4	2601
14	1	74	74	1	5476
15	3	72	216	9	5184
16	2	72	144	4	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	5	77	385	25	5929
20	3	76	228	9	5776
21	4	64	256	16	4096
22	2	67	134	4	4489
23	3	49	147	9	2401
24	4	74	296	16	5476
25	3	54	162	9	2916
26	4	54	216	16	2916
27	3	69	207	9	4761
28	3	63	189	9	3969
29	4	66	264	16	4356
30	2	53	106	4	2809
31	4	72	288	16	5184
32	3	80	240	9	6400
33	2	56	112	4	3136
34	5	72	360	25	5184
35	3	59	177	9	3481

36	4	73	292	16	5329
37	3	72	216	9	5184
38	3	80	240	9	6400
39	3	65	195	9	4225
40	3	78	234	9	6084
41	2	49	98	4	2401
42	2	50	100	4	2500
N=42	122	2763	8238	390	185805

36	4	73	292	16	5329
37	3	72	216	9	5184
38	3	80	240	9	6400
39	3	65	195	9	4225
40	4	78	312	16	6084
41	2	49	98	4	2401
42	3	50	150	9	2500
N=42	132	2763	8851	456	185805

Validity instrument no 3

Res	x	Y	xy	x2	y2
1	3	69	207	9	4761
2	5	66	330	25	4356
3	3	68	204	9	4624
3	3	47	141	9	2209
5	5	68	340	25	4624
6	3	62	186	9	3844
7	3	73	219	9	5329
8	4	73	292	16	5329
9	2	65	130	4	4225
10	1	51	51	1	2601
11	5	72	360	25	5184
12	3	52	156	9	2704
13	3	51	153	9	2601
14	3	74	222	9	5476
15	4	72	288	16	5184
16	4	72	288	16	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	3	77	231	9	5929
20	3	76	228	9	5776
21	2	64	128	4	4096
22	3	67	201	9	4489
23	2	49	98	4	2401
24	4	74	296	16	5476
25	2	54	108	4	2916

Validity instrument no 4

Res	x	y	xy	x2	y2
1	3	69	207	9	4761
2	2	66	132	4	4356
3	4	68	272	16	4624
3	3	47	141	9	2209
5	4	68	272	16	4624
6	3	62	186	9	3844
7	5	73	365	25	5329
8	3	73	219	9	5329
9	3	65	195	9	4225
10	3	51	153	9	2601
11	5	72	360	25	5184
12	3	52	156	9	2704
13	3	51	153	9	2601
14	3	74	222	9	5476
15	3	72	216	9	5184
16	5	72	360	25	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	5	77	385	25	5929
20	2	76	152	4	5776
21	3	64	192	9	4096
22	2	67	134	4	4489
23	3	49	147	9	2401
24	4	74	296	16	5476
25	3	54	162	9	2916

26	3	54	162	9	2916
27	3	69	207	9	4761
28	4	63	252	16	3969
29	4	66	264	16	4356
30	2	53	106	4	2809
31	4	72	288	16	5184
32	3	80	240	9	6400
33	2	56	112	4	3136
34	4	72	288	16	5184
35	3	59	177	9	3481
36	4	73	292	16	5329
37	4	72	288	16	5184
38	4	80	320	16	6400
39	4	65	260	16	4225
40	3	78	234	9	6084
41	4	49	196	16	2401
42	2	50	100	4	2500
N=42	138	2763	9267	488	185805

26	4	54	216	16	2916
27	3	69	207	9	4761
28	5	63	315	25	3969
29	3	66	198	9	4356
30	2	53	106	4	2809
31	3	72	216	9	5184
32	5	80	400	25	6400
33	4	56	224	16	3136
34	3	72	216	9	5184
35	2	59	118	4	3481
36	4	73	292	16	5329
37	3	72	216	9	5184
38	5	80	400	25	6400
39	3	65	195	9	4225
40	4	78	312	16	6084
41	4	49	196	16	2401
42	3	50	150	9	2500
N=42	145	2763	9678	535	185805

Validity instrument no 5

Res	x	Y	xy	x2	y2
1	1	69	69	1	4761
2	2	66	132	4	4356
3	4	68	272	16	4624
3	2	47	94	4	2209
5	2	68	136	4	4624
6	3	62	186	9	3844
7	5	73	365	25	5329
8	3	73	219	9	5329
9	3	65	195	9	4225
10	3	51	153	9	2601
11	5	72	360	25	5184
12	3	52	156	9	2704
13	4	51	204	16	2601
14	4	74	296	16	5476
15	4	72	288	16	5184

Validity instrument no 6

Res	x	y	xy	x2	y2
1	4	69	276	16	4761
2	2	66	132	4	4356
3	3	68	204	9	4624
3	1	47	47	1	2209
5	3	68	204	9	4624
6	4	62	248	16	3844
7	3	73	219	9	5329
8	2	73	146	4	5329
9	2	65	130	4	4225
10	2	51	102	4	2601
11	2	72	144	4	5184
12	2	52	104	4	2704
13	3	51	153	9	2601
14	5	74	370	25	5476
15	5	72	360	25	5184



16	4	72	288	16	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	3	77	231	9	5929
20	3	76	228	9	5776
21	3	64	192	9	4096
22	3	67	201	9	4489
23	2	49	98	4	2401
24	3	74	222	9	5476
25	3	54	162	9	2916
26	2	54	108	4	2916
27	4	69	276	16	4761
28	2	63	126	4	3969
29	4	66	264	16	4356
30	2	53	106	4	2809
31	4	72	288	16	5184
32	4	80	320	16	6400
33	3	56	168	9	3136
34	4	72	288	16	5184
35	3	59	177	9	3481
36	4	73	292	16	5329
37	4	72	288	16	5184
38	5	80	400	25	6400
39	4	65	260	16	4225
40	4	78	312	16	6084
41	4	49	196	16	2401
42	2	50	100	4	2500
N=42	139	2763	9340	497	185805

16	5	72	360	25	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	5	77	385	25	5929
20	5	76	380	25	5776
21	4	64	256	16	4096
22	5	67	335	25	4489
23	3	49	147	9	2401
24	3	74	222	9	5476
25	4	54	216	16	2916
26	2	54	108	4	2916
27	2	69	138	4	4761
28	3	63	189	9	3969
29	5	66	330	25	4356
30	3	53	159	9	2809
31	3	72	216	9	5184
32	3	80	240	9	6400
33	1	56	56	1	3136
34	2	72	144	4	5184
35	4	59	236	16	3481
36	3	73	219	9	5329
37	4	72	288	16	5184
38	5	80	400	25	6400
39	3	65	195	9	4225
40	3	78	234	9	6084
41	3	49	147	9	2401
42	3	50	150	9	2500
N=42	137	2763	9213	501	185805

Validity instrument no 7

Res	x	y	Xy	x2	y2
1	4	69	276	16	4761
2	5	66	330	25	4356
3	4	68	272	16	4624
3	3	47	141	9	2209
5	4	68	272	16	4624

Validity instrument no 8

Res	x	y	xy	x2	y2
1	4	69	276	16	4761
2	2	66	132	4	4356
3	4	68	272	16	4624
3	2	47	94	4	2209
5	4	68	272	16	4624

6	4	62	248	16	3844
7	4	73	292	16	5329
8	4	73	292	16	5329
9	4	65	260	16	4225
10	3	51	153	9	2601
11	4	72	288	16	5184
12	4	52	208	16	2704
13	1	51	51	1	2601
14	5	74	370	25	5476
15	4	72	288	16	5184
16	4	72	288	16	5184
17	3	78	234	9	6084
18	3	78	234	9	6084
19	4	77	308	16	5929
20	2	76	152	4	5776
21	3	64	192	9	4096
22	3	67	201	9	4489
23	2	49	98	4	2401
24	2	74	148	4	5476
25	3	54	162	9	2916
26	3	54	162	9	2916
27	4	69	276	16	4761
28	4	63	252	16	3969
29	3	66	198	9	4356
30	3	53	159	9	2809
31	4	72	288	16	5184
32	5	80	400	25	6400
33	1	56	56	1	3136
34	3	72	216	9	5184
35	2	59	118	4	3481
36	3	73	219	9	5329
37	5	72	360	25	5184
38	4	80	320	16	6400
39	4	65	260	16	4225
40	4	78	312	16	6084
41	1	49	49	1	2401
42	1	50	50	1	2500
N=42	140	2763	9453	516	185805

6	3	62	186	9	3844
7	4	73	292	16	5329
8	4	73	292	16	5329
9	2	65	130	4	4225
10	4	51	204	16	2601
11	2	72	144	4	5184
12	2	52	104	4	2704
13	2	51	102	4	2601
14	4	74	296	16	5476
15	4	72	288	16	5184
16	4	72	288	16	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	5	77	385	25	5929
20	3	76	228	9	5776
21	4	64	256	16	4096
22	3	67	201	9	4489
23	3	49	147	9	2401
24	5	74	370	25	5476
25	4	54	216	16	2916
26	3	54	162	9	2916
27	3	69	207	9	4761
28	1	63	63	1	3969
29	5	66	330	25	4356
30	2	53	106	4	2809
31	3	72	216	9	5184
32	4	80	320	16	6400
33	4	56	224	16	3136
34	4	72	288	16	5184
35	3	59	177	9	3481
36	4	73	292	16	5329
37	4	72	288	16	5184
38	3	80	240	9	6400
39	2	65	130	4	4225
40	3	78	234	9	6084
41	1	49	49	1	2401
42	1	50	50	1	2500
N=42	136	2763	9175	488	185805

Validity instrument no 9

Res	x	y	xy	x2	y2
1	4	69	276	16	4761
2	2	66	132	4	4356
3	3	68	204	9	4624
3	2	47	94	4	2209
5	4	68	272	16	4624
6	3	62	186	9	3844
7	3	73	219	9	5329
8	4	73	292	16	5329
9	5	65	325	25	4225
10	1	51	51	1	2601
11	2	72	144	4	5184
12	4	52	208	16	2704
13	2	51	102	4	2601
14	4	74	296	16	5476
15	2	72	144	4	5184
16	3	72	216	9	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	3	77	231	9	5929
20	5	76	380	25	5776
21	3	64	192	9	4096
22	4	67	268	16	4489
23	2	49	98	4	2401
24	2	74	148	4	5476
25	4	54	216	16	2916
26	3	54	162	9	2916
27	2	69	138	4	4761
28	1	63	63	1	3969
29	4	66	264	16	4356
30	3	53	159	9	2809
31	4	72	288	16	5184
32	4	80	320	16	6400
33	1	56	56	1	3136
34	5	72	360	25	5184
35	4	59	236	16	3481

Validity instrument no10

Res	x	y	xy	x2	y2
1	5	69	345	25	4761
2	5	66	330	25	4356
3	3	68	204	9	4624
3	1	47	47	1	2209
5	2	68	136	4	4624
6	2	62	124	4	3844
7	3	73	219	9	5329
8	2	73	146	4	5329
9	4	65	260	16	4225
10	2	51	102	4	2601
11	5	72	360	25	5184
12	3	52	156	9	2704
13	2	51	102	4	2601
14	2	74	148	4	5476
15	4	72	288	16	5184
16	3	72	216	9	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	2	77	154	4	5929
20	4	76	304	16	5776
21	3	64	192	9	4096
22	4	67	268	16	4489
23	4	49	196	16	2401
24	5	74	370	25	5476
25	4	54	216	16	2916
26	1	54	54	1	2916
27	3	69	207	9	4761
28	2	63	126	4	3969
29	3	66	198	9	4356
30	2	53	106	4	2809
31	3	72	216	9	5184
32	5	80	400	25	6400
33	2	56	112	4	3136
34	2	72	144	4	5184
35	3	59	177	9	3481

36	3	73	219	9	5329
37	3	72	216	9	5184
38	4	80	320	16	6400
39	3	65	195	9	4225
40	5	78	390	25	6084
41	2	49	98	4	2401
42	3	50	150	9	2500
N=42	133	2763	8952	471	185805

36	4	73	292	16	5329
37	2	72	144	4	5184
38	5	80	400	25	6400
39	4	65	260	16	4225
40	4	78	312	16	6084
41	2	49	98	4	2401
42	2	50	100	4	2500
N=42	131	2763	8853	465	185805

Validity instrument no 11

Res	x	y	xy	x2	y2
1	4	69	276	16	4761
2	1	66	66	1	4356
3	2	68	136	4	4624
3	4	47	188	16	2209
5	2	68	136	4	4624
6	4	62	248	16	3844
7	3	73	219	9	5329
8	4	73	292	16	5329
9	4	65	260	16	4225
10	2	51	102	4	2601
11	4	72	288	16	5184
12	3	52	156	9	2704
13	4	51	204	16	2601
14	4	74	296	16	5476
15	2	72	144	4	5184
16	4	72	288	16	5184
17	3	78	234	9	6084
18	3	78	234	9	6084
19	4	77	308	16	5929
20	4	76	304	16	5776
21	3	64	192	9	4096
22	4	67	268	16	4489
23	4	49	196	16	2401
24	3	74	222	9	5476
25	3	54	162	9	2916

Validity instrument no 12

Res	x	y	xy	x2	y2
1	4	69	276	16	4761
2	4	66	264	16	4356
3	4	68	272	16	4624
3	3	47	141	9	2209
5	2	68	136	4	4624
6	4	62	248	16	3844
7	4	73	292	16	5329
8	4	73	292	16	5329
9	2	65	130	4	4225
10	3	51	153	9	2601
11	4	72	288	16	5184
12	3	52	156	9	2704
13	4	51	204	16	2601
14	2	74	148	4	5476
15	4	72	288	16	5184
16	3	72	216	9	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	3	77	231	9	5929
20	3	76	228	9	5776
21	4	64	256	16	4096
22	4	67	268	16	4489
23	2	49	98	4	2401
24	5	74	370	25	5476
25	3	54	162	9	2916

26	3	54	162	9	2916
27	5	69	345	25	4761
28	2	63	126	4	3969
29	2	66	132	4	4356
30	3	53	159	9	2809
31	4	72	288	16	5184
32	5	80	400	25	6400
33	2	56	112	4	3136
34	4	72	288	16	5184
35	2	59	118	4	3481
36	3	73	219	9	5329
37	2	72	144	4	5184
38	4	80	320	16	6400
39	4	65	260	16	4225
40	5	78	390	25	6084
41	1	49	49	1	2401
42	3	50	150	9	2500
N=42	136	2763	9081	484	185805

26	2	54	108	4	2916
27	4	69	276	16	4761
28	3	63	189	9	3969
29	2	66	132	4	4356
30	3	53	159	9	2809
31	3	72	216	9	5184
32	4	80	320	16	6400
33	2	56	112	4	3136
34	2	72	144	4	5184
35	4	59	236	16	3481
36	4	73	292	16	5329
37	3	72	216	9	5184
38	5	80	400	25	6400
39	3	65	195	9	4225
40	4	78	312	16	6084
41	2	49	98	4	2401
42	2	50	100	4	2500
N=42	138	2763	9246	486	185805

Validity instrument no 13

Res	x	y	xy	x2	y2
1	3	69	207	9	4761
2	2	66	132	4	4356
3	4	68	272	16	4624
3	4	47	188	16	2209
5	4	68	272	16	4624
6	3	62	186	9	3844
7	5	73	365	25	5329
8	4	73	292	16	5329
9	5	65	325	25	4225
10	1	51	51	1	2601
11	5	72	360	25	5184
12	2	52	104	4	2704
13	3	51	153	9	2601
14	5	74	370	25	5476
15	4	72	288	16	5184

Validity instrument no 14

Res	x	y	xy	x2	y2
1	5	69	345	25	4761
2	4	66	264	16	4356
3	4	68	272	16	4624
3	2	47	94	4	2209
5	5	68	340	25	4624
6	4	62	248	16	3844
7	2	73	146	4	5329
8	5	73	365	25	5329
9	2	65	130	4	4225
10	2	51	102	4	2601
11	2	72	144	4	5184
12	1	52	52	1	2704
13	4	51	204	16	2601
14	5	74	370	25	5476
15	3	72	216	9	5184



16	4	72	288	16	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	4	77	308	16	5929
20	5	76	380	25	5776
21	4	64	256	16	4096
22	3	67	201	9	4489
23	2	49	98	4	2401
24	3	74	222	9	5476
25	3	54	162	9	2916
26	1	54	54	1	2916
27	3	69	207	9	4761
28	4	63	252	16	3969
29	1	66	66	1	4356
30	4	53	212	16	2809
31	4	72	288	16	5184
32	4	80	320	16	6400
33	3	56	168	9	3136
34	3	72	216	9	5184
35	3	59	177	9	3481
36	4	73	292	16	5329
37	4	72	288	16	5184
38	3	80	240	9	6400
39	2	65	130	4	4225
40	4	78	312	16	6084
41	1	49	49	1	2401
42	1	50	50	1	2500
N=42	139	2763	9425	517	185805

16	4	72	288	16	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	3	77	231	9	5929
20	5	76	380	25	5776
21	3	64	192	9	4096
22	4	67	268	16	4489
23	2	49	98	4	2401
24	4	74	296	16	5476
25	1	54	54	1	2916
26	2	54	108	4	2916
27	5	69	345	25	4761
28	5	63	315	25	3969
29	1	66	66	1	4356
30	2	53	106	4	2809
31	4	72	288	16	5184
32	3	80	240	9	6400
33	4	56	224	16	3136
34	5	72	360	25	5184
35	1	59	59	1	3481
36	3	73	219	9	5329
37	3	72	216	9	5184
38	4	80	320	16	6400
39	3	65	195	9	4225
40	3	78	234	9	6084
41	2	49	98	4	2401
42	4	50	200	16	2500
N=42	138	2763	9316	520	185805

Validity instrument no 15

Res	x	y	xy	x <sup>2</sup>	y <sup>2</sup>
1	1	69	69	1	4761
2	5	66	330	25	4356
3	5	68	340	25	4624
3	4	47	188	16	2209
5	4	68	272	16	4624

Validity instrument no 16

Res	x	y	xy	x <sup>2</sup>	y <sup>2</sup>
1	2	69	138	4	4761
2	5	66	330	25	4356
3	3	68	204	9	4624
3	1	47	47	1	2209
5	2	68	136	4	4624



6	3	62	186	9	3844
7	5	73	365	25	5329
8	5	73	365	25	5329
9	5	65	325	25	4225
10	3	51	153	9	2601
11	5	72	360	25	5184
12	3	52	156	9	2704
13	4	51	204	16	2601
14	5	74	370	25	5476
15	5	72	360	25	5184
16	3	72	216	9	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	5	77	385	25	5929
20	5	76	380	25	5776
21	3	64	192	9	4096
22	4	67	268	16	4489
23	2	49	98	4	2401
24	4	74	296	16	5476
25	2	54	108	4	2916
26	3	54	162	9	2916
27	3	69	207	9	4761
28	2	63	126	4	3969
29	4	66	264	16	4356
30	4	53	212	16	2809
31	3	72	216	9	5184
32	4	80	320	16	6400
33	5	56	280	25	3136
34	3	72	216	9	5184
35	2	59	118	4	3481
36	4	73	292	16	5329
37	4	72	288	16	5184
38	4	80	320	16	6400
39	2	65	130	4	4225
40	4	78	312	16	6084
41	2	49	98	4	2401
42	3	50	150	9	2500
N=42	154	2763	10321	614	185805

6	3	62	186	9	3844
7	3	73	219	9	5329
8	2	73	146	4	5329
9	2	65	130	4	4225
10	3	51	153	9	2601
11	2	72	144	4	5184
12	2	52	104	4	2704
13	2	51	102	4	2601
14	3	74	222	9	5476
15	1	72	72	1	5184
16	4	72	288	16	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	4	77	308	16	5929
20	5	76	380	25	5776
21	4	64	256	16	4096
22	5	67	335	25	4489
23	2	49	98	4	2401
24	4	74	296	16	5476
25	2	54	108	4	2916
26	3	54	162	9	2916
27	5	69	345	25	4761
28	3	63	189	9	3969
29	3	66	198	9	4356
30	3	53	159	9	2809
31	3	72	216	9	5184
32	3	80	240	9	6400
33	3	56	168	9	3136
34	4	72	288	16	5184
35	3	59	177	9	3481
36	3	73	219	9	5329
37	3	72	216	9	5184
38	4	80	320	16	6400
39	2	65	130	4	4225
40	4	78	312	16	6084
41	3	49	147	9	2401
42	4	50	200	16	2500
N=42	130	2763	8712	446	185805

Validity instrument no 17

Res	x	y	Xy	x2	y2
1	5	69	345	25	4761
2	1	66	66	1	4356
3	3	68	204	9	4624
3	1	47	47	1	2209
5	5	68	340	25	4624
6	2	62	124	4	3844
7	3	73	219	9	5329
8	5	73	365	25	5329
9	1	65	65	1	4225
10	2	51	102	4	2601
11	1	72	72	1	5184
12	1	52	52	1	2704
13	1	51	51	1	2601
14	5	74	370	25	5476
15	5	72	360	25	5184
16	3	72	216	9	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	4	77	308	16	5929
20	5	76	380	25	5776
21	4	64	256	16	4096
22	3	67	201	9	4489
23	5	49	245	25	2401
24	4	74	296	16	5476
25	1	54	54	1	2916
26	4	54	216	16	2916
27	4	69	276	16	4761
28	4	63	252	16	3969
29	2	66	132	4	4356
30	3	53	159	9	2809
31	4	72	288	16	5184
32	4	80	320	16	6400
33	4	56	224	16	3136
34	4	72	288	16	5184
35	5	59	295	25	3481

Validity instrument no 18

Res	x	y	xy	x2	y2
1	4	69	276	16	4761
2	4	66	264	16	4356
3	4	68	272	16	4624
3	2	47	94	4	2209
5	4	68	272	16	4624
6	3	62	186	9	3844
7	4	73	292	16	5329
8	4	73	292	16	5329
9	4	65	260	16	4225
10	4	51	204	16	2601
11	3	72	216	9	5184
12	4	52	208	16	2704
13	2	51	102	4	2601
14	4	74	296	16	5476
15	4	72	288	16	5184
16	3	72	216	9	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	3	77	231	9	5929
20	3	76	228	9	5776
21	4	64	256	16	4096
22	3	67	201	9	4489
23	2	49	98	4	2401
24	4	74	296	16	5476
25	2	54	108	4	2916
26	2	54	108	4	2916
27	4	69	276	16	4761
28	2	63	126	4	3969
29	4	66	264	16	4356
30	3	53	159	9	2809
31	4	72	288	16	5184
32	4	80	320	16	6400
33	4	56	224	16	3136
34	5	72	360	25	5184
35	2	59	118	4	3481

36	3	73	219	9	5329
37	4	72	288	16	5184
38	4	80	320	16	6400
39	4	65	260	16	4225
40	5	78	390	25	6084
41	2	49	98	4	2401
42	3	50	150	9	2500
N=42	141	2763	9537	551	185805

36	4	73	292	16	5329
37	5	72	360	25	5184
38	3	80	240	9	6400
39	3	65	195	9	4225
40	5	78	390	25	6084
41	3	49	147	9	2401
42	3	50	150	9	2500
N=42	146	2763	9797	538	185805

Validity instrument no 19

Res	x	y	xy	x2	y2
1	2	69	138	4	4761
2	1	66	66	1	4356
3	3	68	204	9	4624
3	2	47	94	4	2209
5	4	68	272	16	4624
6	2	62	124	4	3844
7	3	73	219	9	5329
8	5	73	365	25	5329
9	5	65	325	25	4225
10	3	51	153	9	2601
11	5	72	360	25	5184
12	3	52	156	9	2704
13	3	51	153	9	2601
14	5	74	370	25	5476
15	5	72	360	25	5184
16	4	72	288	16	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	3	77	231	9	5929
20	2	76	152	4	5776
21	1	64	64	1	4096
22	2	67	134	4	4489
23	1	49	49	1	2401
24	4	74	296	16	5476
25	2	54	108	4	2916

Validity instrument no 20

Res	x	y	xy	x2	y2
1	3	69	207	9	4761
2	4	66	264	16	4356
3	3	68	204	9	4624
3	3	47	141	9	2209
5	3	68	204	9	4624
6	2	62	124	4	3844
7	3	73	219	9	5329
8	4	73	292	16	5329
9	5	65	325	25	4225
10	4	51	204	16	2601
11	5	72	360	25	5184
12	3	52	156	9	2704
13	1	51	51	1	2601
14	3	74	222	9	5476
15	4	72	288	16	5184
16	4	72	288	16	5184
17	4	78	312	16	6084
18	4	78	312	16	6084
19	4	77	308	16	5929
20	5	76	380	25	5776
21	2	64	128	4	4096
22	3	67	201	9	4489
23	1	49	49	1	2401
24	4	74	296	16	5476
25	2	54	108	4	2916

26	4	54	216	16	2916
27	3	69	207	9	4761
28	5	63	315	25	3969
29	5	66	330	25	4356
30	2	53	106	4	2809
31	4	72	288	16	5184
32	5	80	400	25	6400
33	4	56	224	16	3136
34	4	72	288	16	5184
35	4	59	236	16	3481
36	4	73	292	16	5329
37	4	72	288	16	5184
38	4	80	320	16	6400
39	4	65	260	16	4225
40	4	78	312	16	6084
41	4	49	196	16	2401
42	3	50	150	9	2500
N=42	145	2763	9733	559	185805

26	3	54	162	9	2916
27	3	69	207	9	4761
28	4	63	252	16	3969
29	3	66	198	9	4356
30	3	53	159	9	2809
31	4	72	288	16	5184
32	4	80	320	16	6400
33	3	56	168	9	3136
34	3	72	216	9	5184
35	3	59	177	9	3481
36	4	73	292	16	5329
37	5	72	360	25	5184
38	4	80	320	16	6400
39	5	65	325	25	4225
40	3	78	234	9	6084
41	4	49	196	16	2401
42	2	50	100	4	2500
N=42	143	2763	9617	527	185805



$$\begin{aligned}
 1. \ r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
 &= \frac{42 \cdot 8238 - (122)(2763)}{\sqrt{(42 \cdot 390 - (122)^2)(42 \cdot 185805 - (2763)^2)}}
 \end{aligned}$$

$$\begin{aligned}
&= \frac{345744 - 337330}{\sqrt{(16380 - 14884)(7803810 - 7645225)}} \\
&= \frac{8414}{\sqrt{1496 \cdot 158585}} \\
&= \frac{8414}{15402,6998} \\
&= 0,546
\end{aligned}$$

$$\begin{aligned}
2. \quad r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42 \cdot 8852 - (132)(2763)}{\sqrt{(42 \cdot 456 - (132)^2)(42 \cdot 185805 - (2763)^2)}} \\
&= \frac{371741 - 364716}{\sqrt{(19152 - 17424)(7803810 - 7645225)}} \\
&= \frac{7026}{\sqrt{1728 \cdot 158585}} \\
&= \frac{7026}{16553,9989} \\
&= 0,424
\end{aligned}$$

$$\begin{aligned}
3. \quad r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42 \cdot 9267 - (138)(2763)}{\sqrt{(42 \cdot 488 - (138)^2)(42 \cdot 185805 - (2763)^2)}} \\
&= \frac{345744 - 337330}{\sqrt{(20496 - 19044)(7803810 - 7645225)}} \\
&= \frac{7920}{\sqrt{1452 \cdot 158585}} \\
&= \frac{7920}{15174,499} \\
&= 0,522
\end{aligned}$$

$$\begin{aligned}
4. \quad r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42 \cdot 9678 - (145)(2763)}{\sqrt{(42 \cdot 535 - (145)^2)(42 \cdot 185805 - (2763)^2)}}
\end{aligned}$$

$$\begin{aligned}
&= \frac{406476 - 400635}{\sqrt{(22470 - 21025)(7803810 - 7645225)}} \\
&= \frac{5841}{\sqrt{1445 \cdot 158585}} \\
&= \frac{5841}{15137,877} \\
&= 0,386
\end{aligned}$$

$$\begin{aligned}
5. \quad r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42.9340 - (139)(2763)}{\sqrt{(42.497 - (139)^2)(42.185805 - (2763)^2)}} \\
&= \frac{392280 - 384057}{\sqrt{(20874 - 19321)(7803810 - 7645225)}} \\
&= \frac{8223}{\sqrt{1553 \cdot 158585}} \\
&= \frac{8223}{15693,390} \\
&= 0,524
\end{aligned}$$

$$\begin{aligned}
6. \quad r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42.9213 - (137)(2763)}{\sqrt{(42.501 - (137)^2)(42.185805 - (2763)^2)}} \\
&= \frac{386946 - 378531}{\sqrt{(21042 - 18769)(7803810 - 7645225)}} \\
&= \frac{8415}{\sqrt{2273 \cdot 158585}} \\
&= \frac{8415}{18985,882} \\
&= 0,443
\end{aligned}$$

$$\begin{aligned}
7. \quad r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42.9563 - (140)(2763)}{\sqrt{(42.516 - (140)^2)(42.185805 - (2763)^2)}}
\end{aligned}$$



$$\begin{aligned}
&= \frac{397026 - 386820}{\sqrt{(21672 - 19600)(7803810 - 7645225)}} \\
&= \frac{10206}{\sqrt{2072 \cdot 158585}} \\
&= \frac{10206}{18126,999} \\
&= 0,563
\end{aligned}$$

$$\begin{aligned}
8. \quad r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42.9175 - (136)(2763)}{\sqrt{(42.488 - (136)^2)(42.185805 - (2763)^2)}} \\
&= \frac{385850 - 375768}{\sqrt{(20496 - 18496)(7803810 - 7645225)}} \\
&= \frac{8582}{\sqrt{2000 \cdot 158585}} \\
&= \frac{8582}{17809,267} \\
&= 0,538
\end{aligned}$$

$$\begin{aligned}
9. \quad r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42.8952 - (133)(2763)}{\sqrt{(42.471 - (133)^2)(42.185805 - (2763)^2)}} \\
&= \frac{375984 - 367479}{\sqrt{(19782 - 17689)(7803810 - 7645225)}} \\
&= \frac{8505}{\sqrt{2093 \cdot 158585}} \\
&= \frac{8505}{18218,628} \\
&= 0,467
\end{aligned}$$

$$\begin{aligned}
10. \quad r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42.8853 - (131)(2763)}{\sqrt{(42.465 - (131)^2)(42.185805 - (2763)^2)}}
\end{aligned}$$

$$\begin{aligned}
&= \frac{371826 - 361953}{\sqrt{(19530 - 17161)(7803810 - 7645225)}} \\
&= \frac{9873}{\sqrt{2369 \cdot 158585}} \\
&= \frac{9873}{19382,669} \\
&= 0,509
\end{aligned}$$

$$\begin{aligned}
11. r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42.9081 - (136)(2763)}{\sqrt{(42.484 - (136)^2)(42.185805 - (2763)^2)}} \\
&= \frac{381402 - 375768}{\sqrt{(20328 - 18496)(7803810 - 7645225)}} \\
&= \frac{5634}{\sqrt{1832 \cdot 158585}} \\
&= \frac{5634}{17044,8737} \\
&= 0,300
\end{aligned}$$

$$\begin{aligned}
12. r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42.9246 - (138)(2763)}{\sqrt{(42.486 - (138)^2)(42.185805 - (2763)^2)}} \\
&= \frac{388332 - 381294}{\sqrt{(20412 - 19044)(7803810 - 7645225)}} \\
&= \frac{7038}{\sqrt{1368 \cdot 158585}} \\
&= \frac{7038}{14729,0285} \\
&= 0,478
\end{aligned}$$

$$\begin{aligned}
13. r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42.9425 - (139)(2763)}{\sqrt{(42.517 - (139)^2)(42.185805 - (2763)^2)}}
\end{aligned}$$

$$\begin{aligned}
&= \frac{395850 - 384057}{\sqrt{(21714 - 19321)(7803810 - 7645225)}} \\
&= \frac{11793}{\sqrt{2393 \cdot 158585}} \\
&= \frac{11793}{19480.6033} \\
&= 0,605
\end{aligned}$$

$$\begin{aligned}
14. r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42 \cdot 9316 - (138)(2763)}{\sqrt{(42 \cdot 520 - (138)^2)(42 \cdot 185805 - (2763)^2)}} \\
&= \frac{391272 - 381294}{\sqrt{(21840 - 19044)(7803810 - 7645225)}} \\
&= \frac{9978}{\sqrt{2796 \cdot 158585}} \\
&= \frac{9978}{21057,1522} \\
&= 0,474
\end{aligned}$$

$$\begin{aligned}
15. r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42 \cdot 10391 - (154)(2763)}{\sqrt{(42 \cdot 614 - (154)^2)(42 \cdot 185805 - (2763)^2)}} \\
&= \frac{436422 - 425502}{\sqrt{(20874 - 19321)(7803810 - 7645225)}} \\
&= \frac{10920}{\sqrt{2072 \cdot 158585}} \\
&= \frac{10920}{18126,999} \\
&= 0,602
\end{aligned}$$

$$\begin{aligned}
16. r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42 \cdot 8712 - (130)(2763)}{\sqrt{(42 \cdot 446 - (130)^2)(42 \cdot 185805 - (2763)^2)}}
\end{aligned}$$

$$\begin{aligned}
&= \frac{365904 - 359190}{\sqrt{(18732 - 16900)(7803810 - 7645225)}} \\
&= \frac{6714}{\sqrt{1832 \cdot 158585}} \\
&= \frac{6714}{17044,8737} \\
&= 0,304
\end{aligned}$$

$$\begin{aligned}
17. r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42.9537 - (141)(2763)}{\sqrt{(42.551 - (141)^2)(42.185805 - (2763)^2)}} \\
&= \frac{400554 - 389583}{\sqrt{(23142 - 19881)(7803810 - 7645225)}} \\
&= \frac{10971}{\sqrt{3261 \cdot 158585}} \\
&= \frac{10971}{22740,8374} \\
&= 0,482
\end{aligned}$$

$$\begin{aligned}
18. r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42.9797 - (146)(2763)}{\sqrt{(42.538 - (146)^2)(42.185805 - (2763)^2)}} \\
&= \frac{411477 - 403398}{\sqrt{(22596 - 21316)(7803810 - 7645225)}} \\
&= \frac{8079}{\sqrt{1280 \cdot 158585}} \\
&= \frac{8079}{14247,4138} \\
&= 0,567
\end{aligned}$$

$$\begin{aligned}
19. r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42.9733 - (145)(2763)}{\sqrt{(42.559 - (145)^2)(42.185805 - (2763)^2)}}
\end{aligned}$$

$$\begin{aligned}
&= \frac{408786 - 400635}{\frac{\sqrt{(23478 - 21025)(7803810 - 7645225)}}{8151}} \\
&= \frac{8151}{\frac{\sqrt{2453 \cdot 158585}}{8151}} \\
&= \frac{19723,3112}{8151} \\
&= 0,413
\end{aligned}$$

$$\begin{aligned}
20. r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
&= \frac{42.9617 - (143)(2763)}{\sqrt{(42.527 - (143)^2)(42.185805 - (2763)^2)}} \\
&= \frac{403914 - 395109}{\sqrt{(22134 - 17956)(7803810 - 7645225)}} \\
&= \frac{8805}{\frac{\sqrt{4178 \cdot 158585}}{8805}} \\
&= \frac{25740,3988}{8805} \\
&= 0,342
\end{aligned}$$



Appendix 5

**Table of Counting to search  $r_{xy}$  with product moment formula**

Res	x	y	xy	x2	y2
1	31	38	1178	961	1444
2	29	37	1073	841	1369
3	33	35	1155	1089	1225
3	27	20	540	729	400
5	36	32	1152	1296	1024
6	31	31	961	961	961
7	37	36	1332	1369	1296
8	41	32	1312	1681	1024
9	36	29	1044	1296	841
10	21	30	630	441	900
11	39	33	1287	1521	1089
12	28	24	672	784	576
13	26	25	650	676	625
14	42	32	1344	1764	1024
15	37	35	1295	1369	1225
16	35	37	1295	1225	1369
17	38	40	1520	1444	1600
18	38	40	1520	1444	1600
19	38	39	1482	1444	1521
20	38	38	1444	1444	1444
21	29	35	1015	841	1225
22	32	35	1120	1024	1225
23	24	25	600	576	625
24	32	42	1344	1024	1764
25	26	28	728	676	784
26	28	26	728	784	676
27	34	35	1190	1156	1225
28	32	31	992	1024	961
29	33	33	1089	1089	1089
30	28	25	700	784	625
31	38	34	1292	1444	1156
32	42	38	1596	1764	1444
33	27	29	783	729	841
34	37	35	1295	1369	1225
35	31	28	868	961	784
36	36	37	1332	1296	1369
37	37	35	1295	1369	1225
38	39	41	1599	1521	1681





39	34	31	1054	1156	961
40	41	37	1517	1681	1369
41	23	26	598	529	676
42	23	27	621	529	729
N=42	1387	1376	46242	47105	46216

### Counting reliability of questionnaire

$$\begin{aligned}
 r_{xy} &= \frac{N \cdot \sum xy - (\sum x)(\sum y)}{\sqrt{(N \cdot \sum x^2 - (\sum x)^2)(N \cdot \sum y^2 - (\sum y)^2)}} \\
 &= \frac{42 \cdot 46242 - (1387)(1376)}{\sqrt{(42 \cdot 47105 - (1387)^2)(42 \cdot 46216 - (1376)^2)}} \\
 &= \frac{1942164 - 1908512}{\sqrt{(1978410 - 1923769)(1941072 - 1893376)}} \\
 &= \frac{33652}{\sqrt{(54651)(47695)}} \\
 &= \frac{33652}{51050,5351} \\
 &= 0,660
 \end{aligned}$$

### Counting questionnaire reliability using Spearman-Brown formula

$$\begin{aligned}
 &= \frac{2r^{1/2}}{1 + r^{1/2}} \\
 &= \frac{2 \cdot 0,660}{1 + 0,660} \\
 &= 0,7951807 = 0,795 \text{ (rounded)}
 \end{aligned}$$

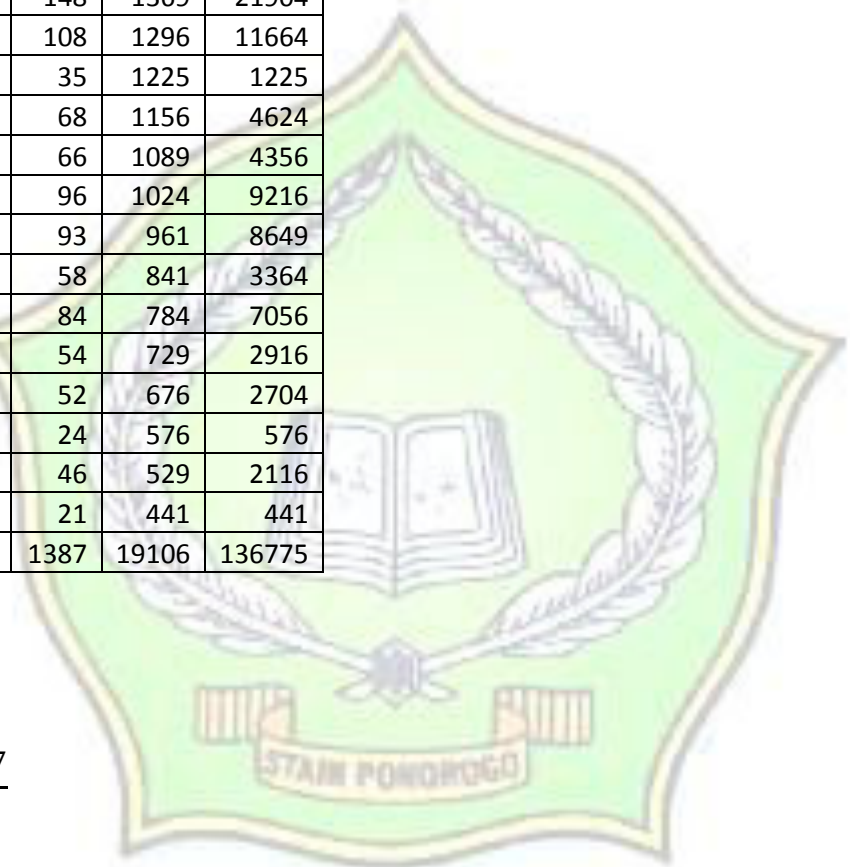
## Calculation of Normality Test by Kolmogorov Smirnov formula

Uji Normalitas

X	f	fx	x <sup>2</sup>	fx <sup>2</sup>
42	2	84	1764	7056
41	2	82	1681	6724
39	2	78	1521	6084
38	5	190	1444	36100
37	4	148	1369	21904
36	3	108	1296	11664
35	1	35	1225	1225
34	2	68	1156	4624
33	2	66	1089	4356
32	3	96	1024	9216
31	3	93	961	8649
29	2	58	841	3364
28	3	84	784	7056
27	2	54	729	2916
26	2	52	676	2704
24	1	24	576	576
23	2	46	529	2116
21	1	21	441	441
Total	42	1387	19106	136775

$$\begin{aligned} Mx &= \frac{\sum fx}{n} \\ &= \frac{1387}{42} \\ &= 33,02 \end{aligned}$$

$$\begin{aligned} SDx &= \sqrt{\frac{\sum fx^2}{n} - \left(\frac{\sum fx}{n}\right)^2} \\ &= \sqrt{\frac{136775}{42} - \left(\frac{1387}{42}\right)^2} \end{aligned}$$



$$= \sqrt{3256,548 - 1090,572}$$

$$= 46,541$$



**Uji normality calculate Kolmogorov-smirnov**

X	f	Fkb	f/n	Fkb/n	Z	P≤Z	A2	A1
---	---	-----	-----	-------	---	-----	----	----

42	2	42	0,047619	1	0,197	0,5753	0,4257	0,1781
41	2	40	0,047619	0,952381	0,172	0,5675	0,3848	0,1372
39	2	38	0,047619	0,904762	0,128	0,5478	0,3569	0,1093
38	5	36	0,119048	0,857143	0,107	0,5398	0,3173	<b>0,1983</b>
37	4	31	0,095238	0,738095	0,085	0,5319	0,2061	0,1109
36	3	27	0,071429	0,642857	0,064	0,5239	0,1189	0,0475
35	1	24	0,02381	0,571429	0,042	0,5260	0,0454	0,0216
34	2	23	0,047619	0,547619	0,021	0,5080	0,0396	0,0080
33	2	21	0,047619	0,5	-0,001	0,5040	0,004	0,0436
32	3	19	0,071429	0,452381	-0,22	0,0871	0,3652	0,1938
31	3	16	0,071429	0,380952	-0,043	0,0160	0,3649	0,1935
29	2	13	0,047619	0,309524	-0,086	0,0319	0,2776	0,1300
28	3	11	0,071429	0,261905	-0,108	0,0398	0,2221	0,1707
27	2	8	0,047619	0,190476	-0,129	0,0478	0,1426	0,0950
26	2	6	0,047619	0,142857	-0,151	0,0596	0,0832	0,0356
24	1	4	0,02381	0,095238	-0,194	0,0753	0,0199	0,0039
23	2	3	0,047619	0,071429	-0,215	0,0832	0,0118	0,0358
21	1	1	0,02381	0,02381	-0,258	0,0987	0,0749	0,0511

Ujihipotesis

$$\begin{aligned}
 D_{(0,05;42)} &= \frac{1,36}{\sqrt{n}} \\
 &= \frac{1,36}{\sqrt{42}} \\
 &= \frac{1,36}{6,4807407} \\
 &= 0,209852 = 0,209
 \end{aligned}$$

Ho  $a_1 \max \leq D_{table}$  sebesar

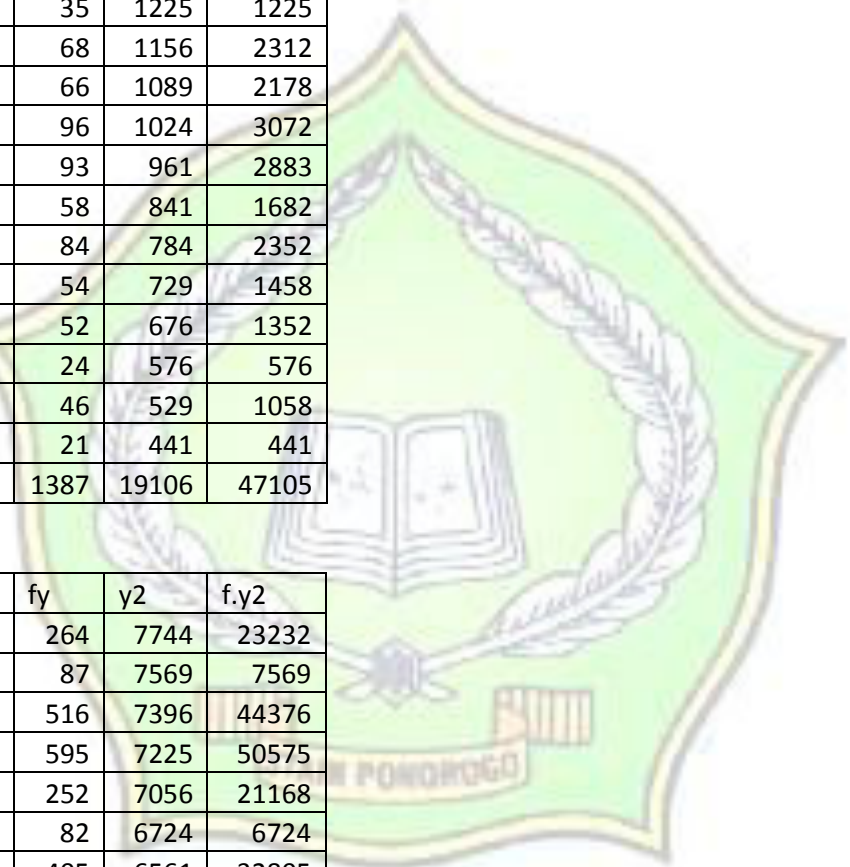
$$0,1983 \leq 0,209$$

Appendix 7

### Calculation of Homogeny Test by Harley

x	f	fx	x <sup>2</sup>	f.x <sup>2</sup>
42	2	84	1764	3528
41	2	82	1681	3362
39	2	78	1521	3042
38	5	190	1444	7220
37	4	148	1369	5476
36	3	108	1296	3888
35	1	35	1225	1225
34	2	68	1156	2312
33	2	66	1089	2178
32	3	96	1024	3072
31	3	93	961	2883
29	2	58	841	1682
28	3	84	784	2352
27	2	54	729	1458
26	2	52	676	1352
24	1	24	576	576
23	2	46	529	1058
21	1	21	441	441
Total	42	1387	19106	47105

y	f	fy	y <sup>2</sup>	f.y <sup>2</sup>
88	3	264	7744	23232
87	1	87	7569	7569
86	6	516	7396	44376
85	7	595	7225	50575
84	3	252	7056	21168
82	1	82	6724	6724
81	5	405	6561	32805
80	9	720	6400	57600
75	6	450	5625	33750
74	1	74	5476	5476
Total	42	3445	67776	283275



$$SDx = \frac{\sum f x^2}{n_x} - \left( \frac{\sum fx}{n} \right)^2$$

$$= \frac{47105}{42} - \left( \frac{1387}{42} \right)^2$$

$$= 1121,5476 - 1090,5720$$

$$= 30,9756$$

$$SDy = \frac{\sum f y^2}{n_y} - \left( \frac{\sum fy}{n} \right)^2$$

$$= \frac{283275}{42} - \left( \frac{3445}{42} \right)^2$$

$$= 6744,6429 - 6727,9054$$

$$= 16,7375$$

$$F_{(max)} = \frac{30,9756}{16,7375} = 1,8507$$

$$db = (n-1;k) = (42-1;2)$$

$$= (41;2)$$

$$Ho = F_{(max)} < F_{(max)} \text{ table}$$



$$= 1,851 < 2,02$$



The correlation study between students' self-efficacy and students' English achievement

X \ Y	21-23	24-26	27-29	30-32	33-35	36-38	39-41	42-44	f(Y)	y'	fy'
87-88			-4	0				+32	4	+4	16
			1	1				2			
85-86		-6	-6	0	+3	+30	+27		13	+3	39
		1	2	1	1	5	3				
83-84						+2			1	+2	2
						1					
81-82	-3			0	+2	+12	+18		6	+1	6
	1			1	2	1	1				
79-80			0	0	0	0	0	0	9	0	0
			1	1	2	3	1	1			
77-78									0	-1	0
75-76		+8	+4	0	-2	0			7	-2	-14
		2	2	1	1	1					
73-74	+9	+6							2	-3	-6
	1	1									
f(x)	3	3	8	6	4	12	4	2	42	-	43
x'	-3	-2	-1	0	1	2	3	4	-		
fx'	-9	-6	-8	0	4	24	12	8	25		
x' <sup>2</sup>	9	4	1	0	1	4	9	16	-		
fx' <sup>2</sup>	27	12	8	0	4	48	36	24	159		
fx'y'	6	8	-6	0	9	44	45	32	<b>138</b>		

DAFTAR NILAI

SMP NEGERI 1 KECAMATAN BABADAN PONOROGO

**TAHUN PELAJARAN 2015/2016**Kelas/ Mapel : VIII-A/ Bahasa Inggris  
Genap

Semester :

No		Nama Siswa	L/ P	UH	TG	UTS	UAS	NA
Urut	Induk							
1	6776	ACHMAD ALDIAN AWALLUDIN SYAH	L					80
2	6887	ALFANDI CAHYO KURNIAWAN	L					85
3	6824	AMIN RAHAYU PUJI LESTARI	P					84
4	6889	ANITA WULANDARI	P					86
5	6939	DADANG RIFVAI	L					85
6	6803	DIMAS AJI PANGESTU	L					80
7	6806	ELZA EGGAYANA	P					81
8	6895	FELIX SAYOGA NUGRAHA	L					84
9	6849	HERLINA ANGGRAINI	P					80
10	6944	JEFA KRISMA AJI	L					87
11	6812	LUTFIANA PUTRI ANGGRAINI	P					81
12	6919	MUHAMMAD IKHSAN MAULANA	L					85
13	6899	MUTIARA PUTRI RENGGANIS	P					86
14	6830	NILA KUMALA FEBRIANI	P					80
15	6902	RATIH YANA LESTARI	P					89
16	6856	RIDHO FANDI NURMALAY TRISIA	L					85
17	6948	RISKI ANANDA HUTAMI	P					86
18	6925	SEPTIYA NURAYUDIA	P					87
19	6817	SUSILO HADI PRAYOGO	L					87
20	6795	TIARA PUSPITA AURANI	P					86
21	6906	YAHYA CANDRA IRAWAN	L					80
22	6819	WULAN NURLIA FADHULASARI	P					80

**DAFTAR NILAI**

**SMP NEGERI 1 KECAMATAN BABADAN PONOROGO**

**TAHUN PELAJARAN 2015/2016**

Kelas/ Mapel : VIII-B/ Bahasa Inggris

Semester : Genap

No		NamaSiswa	L/ P	UH	TG	UTS	UAS	NA
Urut	Induk							
1	6820	ADELIA RAHAYU	P					88
2	6842	ALIF FEBRIAN BAYU MUKTI	L					74
3	6909	AMIRUL MUKMININ	L					84
4	6865	BAYU PRAMA DITYA	L					86
5	6780	DANY ERFAN SYAHPUTRA	L					85
6	6890	DENI WICHA PRATAMA SAIFULLOH	L					80
7	6914	DIAN APRILIANI	P					81
8	6846	DIMAS DHARMAWAN	L					84
9	6893	ENZYA MARQOVATUSARI	P					80
10	6782	FERANIKA YULIA ATIKASENA	P					87
11	6916	HESTY FITDIYATI	P					81
12	6828	M. HUDA FATCHUR	L					75
13	6813	ROHMANOVELLA IGGA MAHARANIN	P					86
14	6787	NOVITA AMANDA PUTRI	P					80
15	6876	RIDWAN	L					84
16	6903	RIZKI IRWANSYAH	L					85
17	6859	SENNY ALBIAS RATRI CINDY L	P					86
18	6878	SOLVIA MAGARETHA PUTRI	P					87
19	6860	SYALMA ALFI'AH DAMAYANTI	P					82
20	6880	TIYON FRIDYAN PUTRA VANESA	L					86
21	6862	WASIS	L					80
22	6839	YAHYA ALI SETIAWAN	L					80

**DAFTAR NILAI**

**SMP NEGERI 1 KECAMATAN BABADAN PONOROGO**

**TAHUN PELAJARAN 2015/2016**

Kelas/ Mapel : VIII-C/ Bahasa Inggris

Semester : Genap

No		Nama Siswa	L/ P	UH	TG	UTS	UAS	NA
Urut	Induk							
1	6886	ADITIYA TIAN AFIANDI	L					74
2	6843	ALVIAN JUANDHANI	L					81
3	6933	ANDI PRASETIO RUSDIANTO	L					75
4	6799	ASMIDA AYU RAHMAWATI	P					84
5	6801	BAYU ADITYA YONANDRA	L					80
6	6937	BELA MEI SAPUTRI	P					76
7	6915	DIMAS DWI SAPUTRO	L					81
8	6896	FEBRIAN ANGGARDA SEPTIAWAN	L					81
9	6869	IKVI NISAUL IZZA	P					74
10	6852	KHARISMA DWI MELATI	P					75
11	6853	LISA NATALIA	P					84
12	6829	MAHESA LEONY PUTRA	L					86
13	6947	NOVI DWI RACHMAWATI	P					74
14	6814	RENDI DANU ALVENO	L					75
15	6831	RIDWAN EFENDI	L					85
16	6858	RONI EKO ARDIYANTO	L					80
17	6834	SINDI NOVITASARI	P					87
18	6904	SOFIA MAULIDA PUTRI	P					88
19	6794	SYLVIA HIDAYATI PUTRI	P					75
20	6836	TRI AYU OKTISAFITRI	P					76
21	6797	WASIS RAGIL ADI SAPUTRO	L					76
22	6907	YANUAR ABDUL FARUQ	L					86

**DAFTAR NILAI**

**SMP NEGERI 1 KECAMATAN BABADAN PONOROGO**

**TAHUN PELAJARAN 2015/2016**

Kelas/ Mapel : VIII-D/ Bahasa Inggris

Semester : Genap

No		NamaSiswa	L/ P	UH	TG	UTS	UAS	NA
Urut	Induk							
1	6789	AF RIZZAL ARYA WIBOWO	L					81
2	6822	ALVIN KHOIRUN NIZA	P					80
3	6934	ANDI SETIAWAN	L					75
4	6911	ASRI WIDIASTUTI	P					76
5	6936	AZZURA NOUR AFRIELA	P					74
6	6779	BRIDA ANGGARA	L					81
7	6940	DIKY WAHYU SISWANTO	L					86
8	6804	DIMAS FEBRIANTORO	L					85
9	6894	ER WANGGA DEWA FURQON	L					75
10	6941	EVA HAFIFA INARVIANI	P					81
11	6783	FEREN EKA FEBRIANA PUTRI	P					86
12	6870	INDAH WAHYUNI	P					88
13	6811	LILIS SURYANI	P					86
14	6918	MAJID BAHARI FATAHILLAH	L					74
15	6855	NABELLA SISKA AYUNI	P					74
16	6922	REXON SUKMA MAHENDRA PUTRA	L					75
17	6857	RIKA SETIATI	P					81
18	6793	SOFIA HANDAYANI	P					75
19	6928	SYLVIA NUR FITRIA	P					80
20	6837	TRI PUTRA ALI AKBAR	L					88
21	6818	WIDYA PURNAMA SARI	P					74
22	6884	YOSSY FASH EDY ALZAHRI	L					75

**DAFTAR NILAI**



**SMP NEGERI 1 KECAMATAN BABADAN PONOROGO**

**TAHUN PELAJARAN 2015/2016**

Kelas/ Mapel : VIII-E/ Bahasa Inggris

Semester : Genap

No		NamaSiswa	L/ P	UH	TG	UTS	UAS	NA
Urut	Induk							
1	6821	AGRINDA ADITIYA RESTU SAPUTRA	L					80
2	6888	ALVIYANA AGUSTIN	P					81
3	6844	ANDIKA DWI CAHYONO	L					75
4	6912	AURELLIA KHONSAA JOANNA S	P					75
5	6913	BRIYAN RENDINATA	L					75
6	6891	DIAN ERMA PUSPITASARI	P					86
7	6807	FADIA SALSABILLA PUTRI	P					80
8	6942	FIRNANDA CHINTYA AYU WARDANI	P					85
9	6850	IRFI DIANA FEBRI ASTUTI	P					81
10	6871	ISVARINA AWALIA	P					75
11	6945	MARCELLYA ARDHIA REGITA N	P					74
12	6873	MAULANA ALBAR ARDIANSYAH	L					80
13	6920	NADYA NATASYA IFADA	P					88
14	6788	NUR IKHSAN MUGIANTOKO	L					81
15	6789	REIHAN TRI ASFANUL HANIM	L					74
16	6790	REZA IKA ANGGARA	L					80
17	6815	RIO TRIANA YASA	L					80
18	6949	RUDI PRIYANTO	L					88
19	6879	TACKRID DIN AGUAILERA	P					86
20	6838	VANITA GOVITRIKA	P					80
21	6863	WIJI LESTARI	P					74
22	6840	YOSSY FIRMANSYAH	L					81

**DAFTAR NILAI**

**SMP NEGERI 1 KECAMATAN BABADAN PONOROGO****TAHUN PELAJARAN 2015/2016**

Kelas/ Mapel : VIII-F/ Bahasa Inggris

Semester : Genap

No		Nama Siswa	L/ P	UH	TG	UTS	UAS	NA
Urut	Induk							
1	6931	ALDI ARYA FIRNANDA	L					85
2	6932	AMANDA PUTRI RAHAYU	P					81
3	6910	ANDRE LUCKY HERMAWAN	L					88
4	6800	AWWALU RISMA ROYANI	P					81
5	6781	DIAN SEPTIANA TRI SEJATI	P					86
6	6805	DIO FERDIANSA	L					74
7	6866	DITA AMELIA	P					81
8	6868	FARENDI ARYA DWI SAPUTRA	L					74
9	6809	FREDA PUTRA HANANTA	L					75
10	6848	GAFAN EKA SAPUTRA	L					74
11	6917	LUCKYA AYU DEWI SAPTA MANDALA	P					75
12	6900	NAHLTASYA FATHIRA HENDIKA P P	P					81
13	6921	NUR SYIFAUQ QULUB	L					84
14	6791	REZIDWI ANGGARA	L					85
15	6832	RISCO MAHIHZA PRASCA	L					81
16	6950	TARIS WIDYAWATI	P					75
17	6861	VEDA AYU CHARISSA CHIANANTYA	P					81
18	6881	WAFI TANTIKA	P					80
19	6951	WILDAN FACHRUL	L					82
20	6883	WIWIN LESTARI	P					81
21	6885	YUKA RAHMA SHANDY PRATAMA	P					81
22	7154	ALFINNU CHOIRUL AKBAR	L					75

**CURRICULUM VITAE**

WindaAminartoPrahasti was born on June 22, 1992 in Ponorogo. She is single daughter of Mr.Djemakun and Mrs.Amin. shegradfuated from Elementary School of Babadan 1 and Madrasah DiniyahHasyimAsy'ariin 2005.

She continue her education at SMP N 1 Babadan and graduated in 2008. Then, she contunued her study in SMA N 1 Babadan and graduated in 2011. She took IPA at SMA N 1 Babadan.

She continued her study at theState Islamic College (STAIN) of Ponorog in the year 2012. She took English Education Department, Faculty of Educationat STAIN Ponorogo.

